ARC396 for BCD396T

User Manual

Version 2.00

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1: INTRODUCTION:

ARC396 is a Windows software package for easy programming and controlling the Uniden BCD396T.

System requirements:

- Windows XP/Win2000/Vista
- Minimum display resolution settings: VGA 800x600
- Display must be set to SMALL Fonts
- Free serial port com1-com16 or USB to serial converter or USB-1 cable

ARC396 Quick Start Reference:

- Install the software (1.1)
- Enter the registration information (1.2)
- Connect the scanner to the PC (1.3)
- Setup the RS232 serial communication port number and baudrate using auto detect (1.4)

New Folder settings:

By default your data and audio files (PRO version) are now stored under the My documents folder.
To change this start the software and select SETUP _Software Options. Select the “general” tab and unselected the ‘Windows Vista style’ option.

Windows VISTA INFORMATION:

ARC396 V2.0 is now Vista ‘limited user’ compliant.
ARC396 V2.0 does not require administrative rights anymore.

IMPORTANT INFORMATION:

IMPORTANT: YOU MUST ENTER A VALID REGISTRATION CODE TO MAKE FULL USE OF THE SOFTWARE. THE REGISTRATION CODE IS SEND TO YOU BY E-MAIL (IF YOU PURCHASED ONLINE) OR IS IN THE CD BOX.
DO NOT LOSE THIS INFORMATION; YOU NEED IT FOR UPDATES!

Software limitations/ Important Information:

Screenshots in this manual were taken from ARC-246/ARC-330/ARC-396

ARC396 can open 400 systems at the same time.
Per system you can open 20 groups.

Per conventional system you can store 4000 frequencies.

Per group (both trunk and conventional) you can program 200 channels.

If you want to program more than 200 frequencies in a conventional system, use extra groups to store the frequencies.

The BCD396T can only store 200 channels in a trunk system. ARC396 can store more channels but the BCD396T will not accept more than 200 channels.

You can program a maximum of 200 Trunk frequencies per system.

'Empty' channels are not sent to your scanner, so they do not waste space in scanners memory!

A race system (BR330 only) can contain a maximum of 99 cars.

BR330 models: System Qkey 0 is reserved for race systems.

1.1 Software installation:

The ARC396 is available as Internet download or on CD-ROM.

Windows XP/2000: You must be logged on as administrator to install ARC396.

Internet download:

The downloaded file contains all the necessary files for installation. Run the exe file and the installer will automatically start.

CD ROM:

Insert the CDROM; the CDROM has an auto start option that will automatically start the installation process. If the installation process does not start, simply run setup.exe

During the installation process you can set the installation directory. We suggest using the default directory. You cannot install the software on a network drive.

Software un installation:
ARC396 will automatically add an uninstall option. Use the Windows Control panel for uninstalling the software. Backup your work before using the uninstall option.

1.2 Registration:

After installation of the software, the program runs in DEMO mode. You must enter a valid registration code to activate the software. Without valid registration the software will not upload data to the scanner.

DEMO mode restrictions:

- In demo mode you can upload limited number of systems for a limited period
- When demo expires no systems can be send to the scanner

Internet download: customers that purchased using the Internet download option; receive a registration code by e-mail.

It is VERY IMPORTANT that you store the registration code in a safe place. If you lose the registration information you must buy a new registration code.

CDROM: in the jewel case of the CDROM you find the registration information. Store the case of the CDROM in a safe place.

Enter registration:

Start the software by selecting START _ PROGRAMS _ BuTel _ ARC396 _ ARC396 for Uniden BCD396T. After the start screen, select HELP _ REGISTER in the menu.

Enter the name and key information: the name is case sensitive!
No spaces are allowed. The key only contains numbers. The name may contain '0' (=zero) or capital O.

1.3 Connect your scanner:

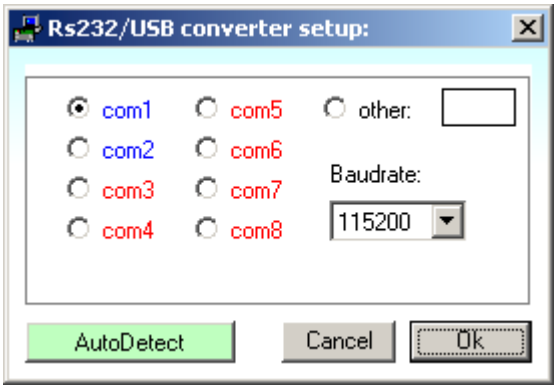
The scanner must be connected to a free serial port. This is normally a 9-pin connector at the back of your PC. Refer to your PC and scanner manual for information.

BCD396T: the BCD396T comes with a serial cable; connect to a free serial port

1.4: Getting started: RS232 communication setup

After installation of the software you must check and set the software settings for RS232 communication.

Start the software and select: BCD396T _ RS232 setup from the menu.



The software has an auto detect option.

If you know the settings for the serial communications port and baud-rate you can manually set them. Select OK and the software will store your settings. The software remembers these settings.

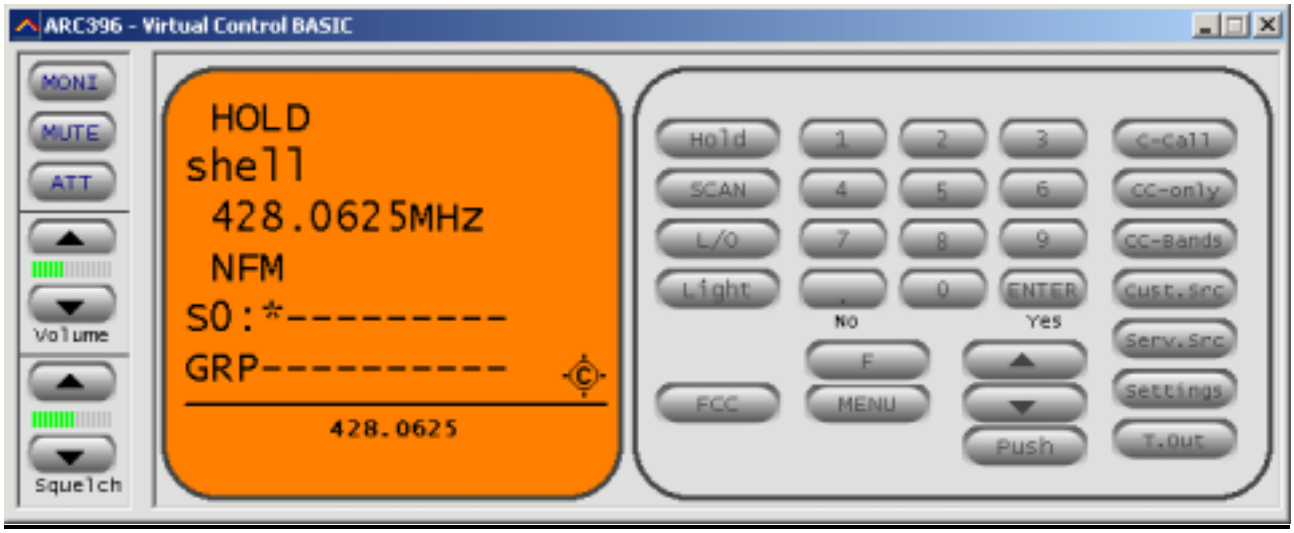
The software automatically shows you the available comports. 'Blue' comports are available, 'red' comports are either not available/installed or used by other software applications.

If you do not know the correct settings you can use the software auto-detect option:

- Connect your scanner to a free serial comport (normally this is a 9 pin connector) using the cable that was supplied with the scanner
- Switch on your scanner, verify the scanner is enabled for RS232 serial communication: Press MENU, select 'Xfer Information' 'PC Control' and select 115200 and press E to store this setting.
- In the software press the auto-detect button, the software will scan all available serial ports and detect the scanner model and baud-rate. This autodetect process may take several minutes.
- If the software successfully detects the scanner, a message is shown, if the software does not detect the scanner check your cable and the scanner settings. Refer to section 8.2 for troubleshooting tips from our customer support department.
- The 115200 baud-rate setting is the preferred setting. Only use lower baud-rates in case of erratic communications. Choosing a lower baud-rate then 19200 will decrease overall performance of the software.

After setting up the serial communication you can check the connection. From the main menu select: BCD396T _ Virtual Control. After a few seconds the Virtual control panel should show the contents of the scanner display.

Below is an example (your ‘display’ will look different):



1.5: USB information

If your PC does not have a serial port you can purchase the optional USB1 cable from www.scannermaster.com
For telephone support in case of USB communication problems you can contact Uniden customer service.

1.6 Explanation of System and Group Quickkeys

Your scanner can store a maximum of 200 (BR330) or 400 (BCD396) systems. Each system can hold a maximum of 20 groups.

By using system quickkeys you can 'combine' systems and toggle them on/off using a system QuickKey.

In this example system 1 and system 2 are assigned to system qkey 4. So enabling system quickkey 4 will enable or scan these 2 systems.

System 1 - System Quickkey 4
| Group 1 - group quickkey 1
| Group 2 - group quickkey 1
| Group 3 - group quickkey 1

System 2 - System Quickkey 4
| Group 1 - group quickkey 1
| Group 2 - group quickkey 2
| Group 3 - group quickkey 3
| Group 4 - group quickkey 4

System 3 - System Quickkey 7
| Group 1
| Group 2
| Group 3

System 4 - System Quickkey 7
| Group 1
| Group 2
| Group 3
| Group 4
| Group 5

Group quickkeys only work within a system and can only be set when that system is active. So in example above, selecting group quickkey 1 in System 1 will enable group 1, group 2 and group 3 of system 1. The groups in System 3 and 4 are not assigned to a group quickkey and will always be scanned (if related system quickkey 7 is enabled.)

1.7 File folders

By default ARC396 V2.0 files are stored under the ‘My documents’ folder. System data files are stored under ‘My scanner file’.

Audio recordings are stored under ‘My scanner recordings’ (PRO version only).

To change this start the software and select SETUP _Software Options. Select the “general” tab and unselected the ‘Windows Vista style’ option.
When you use Windows Vista this option must be selected.

Windows Vista: Windows Vista limits software to access folders on your harddisk. We advise to use the default folders under the ‘My documents’ folder. If you want the software to have full access to all folders the software must have ‘administrative’ rights.

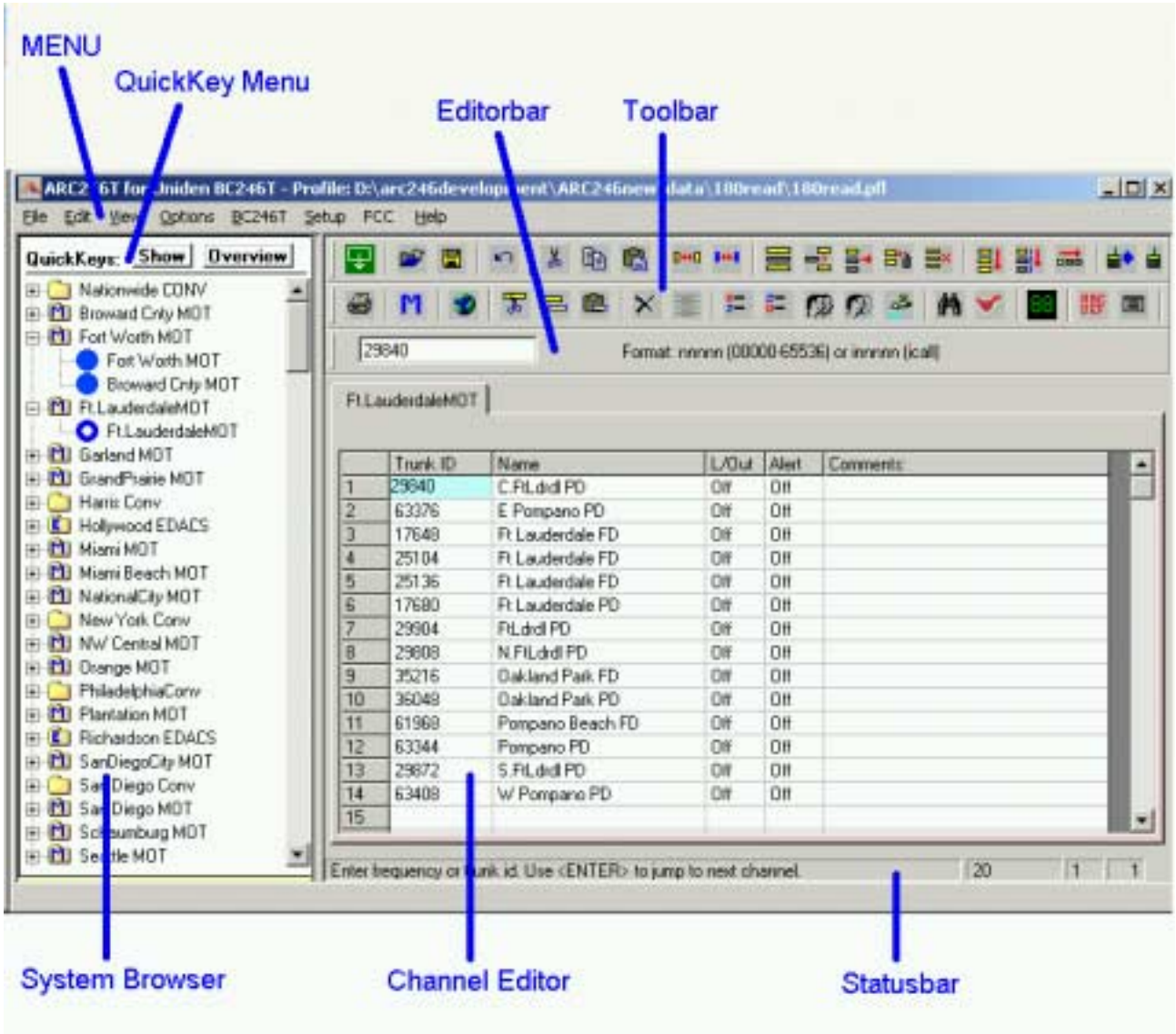
2: Using and understanding the memory channel editor:

ARC396 includes the most versatile memory editor available on the market. Unlike other software packages you can use ARC396 without a scanner connected.

The main editor screen layout is divided into two panes, the left pane is called the ‘system browser’, and the right pane is called the ‘channel editor’.
For your convenience Windows style toolbars and right mouse click menus are available.

This section describes most options available in the memory editor; in order to use the full power of the editor it is important that you read this section carefully. The editor does not require that a scanner be connected.

The memory editor has a clear layout:



The top section has a standard Windows MENU bar and a Toolbar. Most options found in the menu also have a 'shortcut' in the toolbar. If the mouse is moved over a toolbar button a help text is shown giving a brief description of that button.
The editor bar changes as you move the mouse in the editor grid, if you click on a column the editor bar will show the right edit options. You can edit data both in the editor bar or directly in the editor grid.

Tip: In the Frequency/trunk ID and Name column you can enter edit mode by pressing F2 or double clicking a cell.

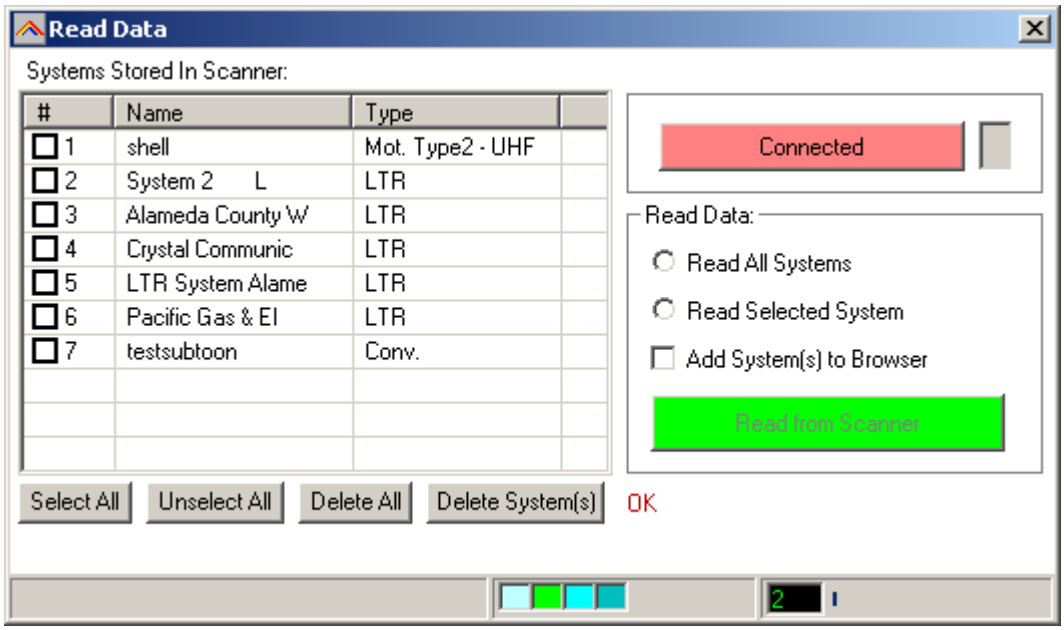
2.1 Reading data from the scanner:

After setting up the communication you can start to use the memory editor. Because there is probably already some data in your scanner it is a good start to first read the data from your scanner.

From the main menu select: BCD396T _ Read Data.

Tip: you can also use the toolbar button or press F5.

A new window is shown:



The software always starts with reading system information from the scanner. This information is required to read data from the scanner.

If the software fails to read data, correct the problem and press 'Connect To BCD396T'.

You can read all systems or selected systems. Make your selection in the list box by clicking the selection boxes.
For your convenience, Select All and Unselect All buttons are available.

In this window you can also delete systems from your scanner.

Add System's option: when this box is checked, the ARC396 systembrowser will not be cleared and all systems you read from the scanner are added into the browser. If this box is not selected the systembrowser will be automatically cleared.

Important: ARC396 can handle systems with the same 'systemname'. But to avoid problems, it is best to only use unique system names.

Memory indicator: In the status bar the current used BCD396T memory is shown (0-100% scale)

2.2: Hints and Tips

Once data is transferred to the memory channel grid you can use many options to edit your data. ARC396 is the most versatile editor available on the market.

Using the menu or toolbar you can easily move/copy/sort data. All options also have a toolbar button available. Moving the mouse pointer over a toolbar button will show a small popup help text.

You can edit data directly in the grid or you can use the editor bar. The editor bar will automatically change if you click on a column.

Tip: In the Frequency/trunk ID and Name column you can enter edit mode by pressing F2 or double clicking a cell. This will show an edit box with cursor and the background color of the cell will change.

In the frequency and tag columns you can directly type data, to edit existing data use the editor bar above the grid or press F2.

Most columns support double click for easy data toggle. The space bar has the same effect as using the mouse double click.

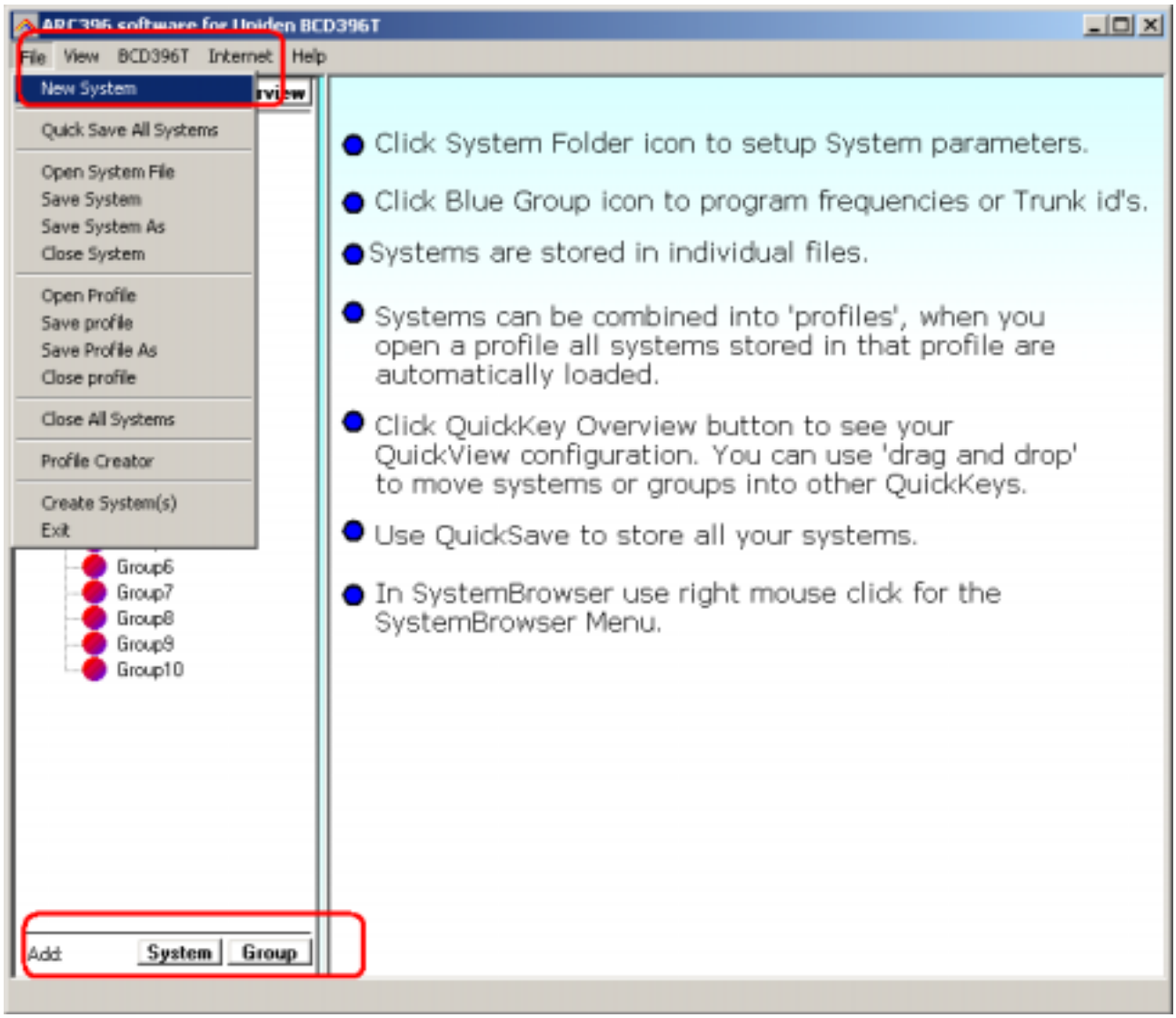
Sorting data: you can easily sort data in the Frequency/trunk id or name column by double clicking the header of those columns!

Keyboard shortcuts:
In some columns you can also use keyboard shortcuts:
Mode: A=Auto, F=FM, N=NFM
On/Off columns: 0 = OFF, 1=ON, F=OFF, N=ON.
Spacebar: toggle data

Although the editor can display ‘Empty’ channels, they are not sent to your scanner.

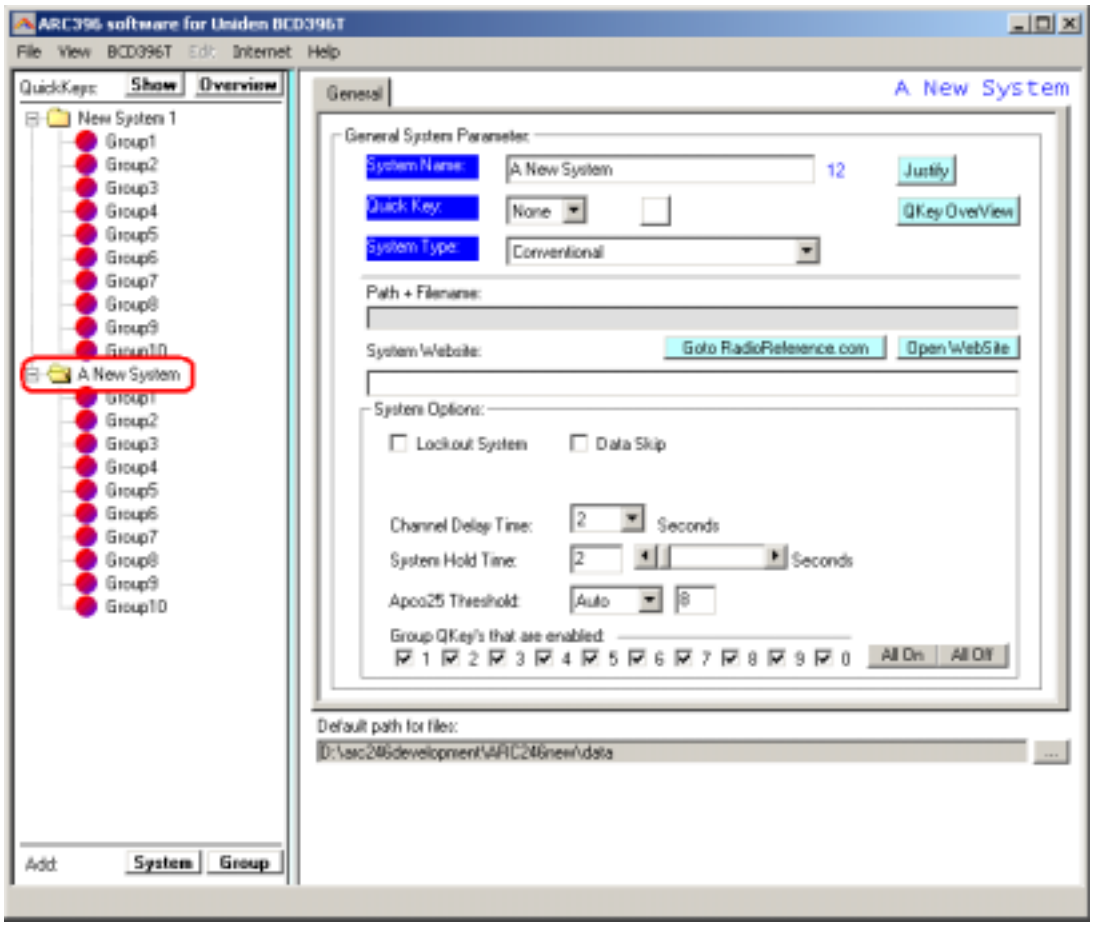
2.3 Build a new system:

To build a new system select ‘FILE _ NEW’, this will add a new system to the systembrowser, or press the System button in the Add menu.



2.3.1 System Parameters

Click the 'New System' line in the systembrowser to open the system parameter editor:



First enter a unique name in the 'System Name' box.

Select the System Type, depending on the systemtype, extra tabs are shown to setup trunk system parameters.

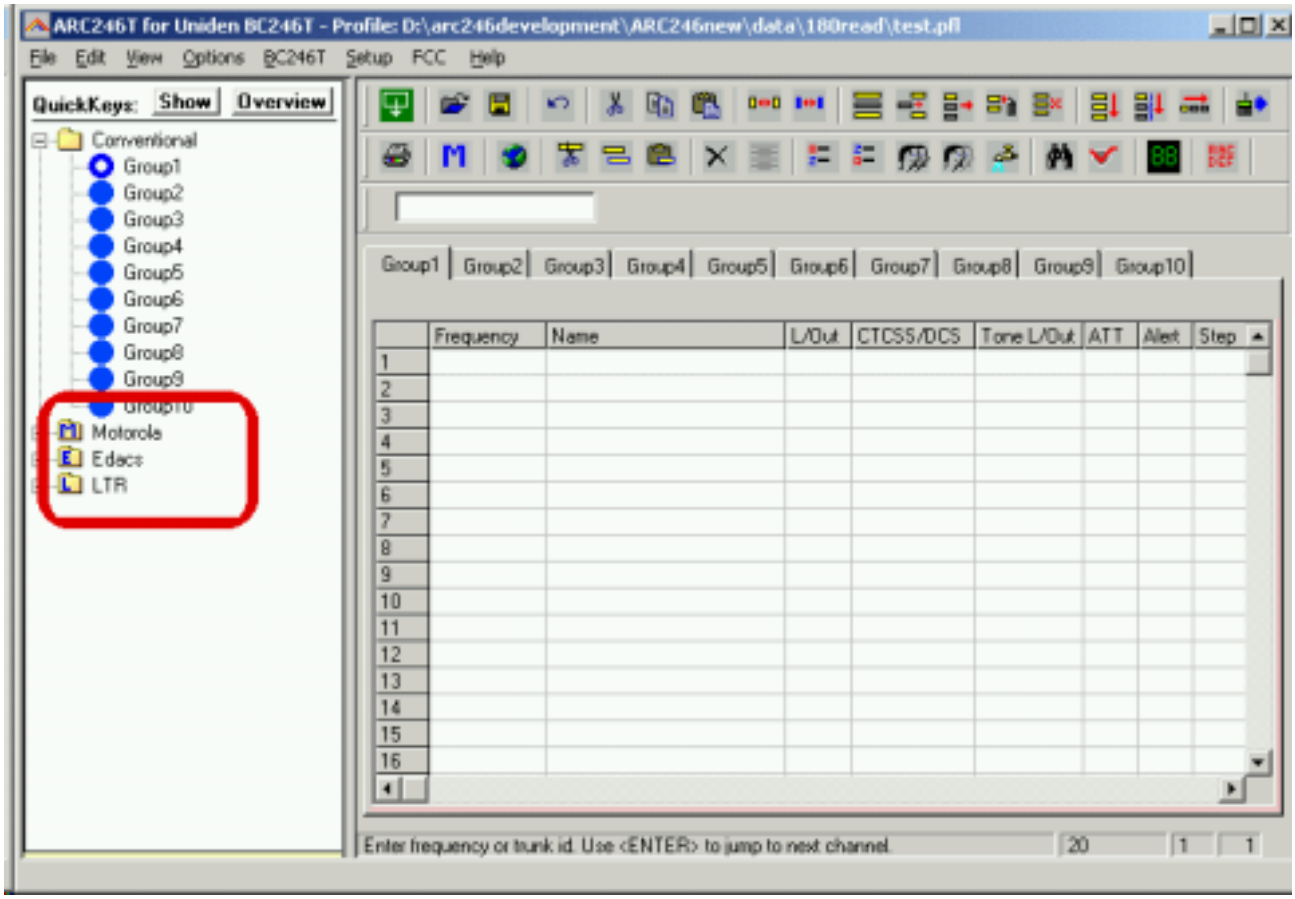
BR330 only: System Quickkey 0 is reserved for race systems!

Website: enter a website with information about this system. Pressing 'Check Site' will open the website. This website link is stored in your system file.

System options: set the system options; refer to BCD396T user manual for information.
If the new system is a trunk system, additional parameters must be set, click the 'trunk system parameters' and 'trunk frequencies' tab to setup this data.

IMPORTANT: before you start programming trunk id's you must first setup the correct system type to avoid problems during data upload.

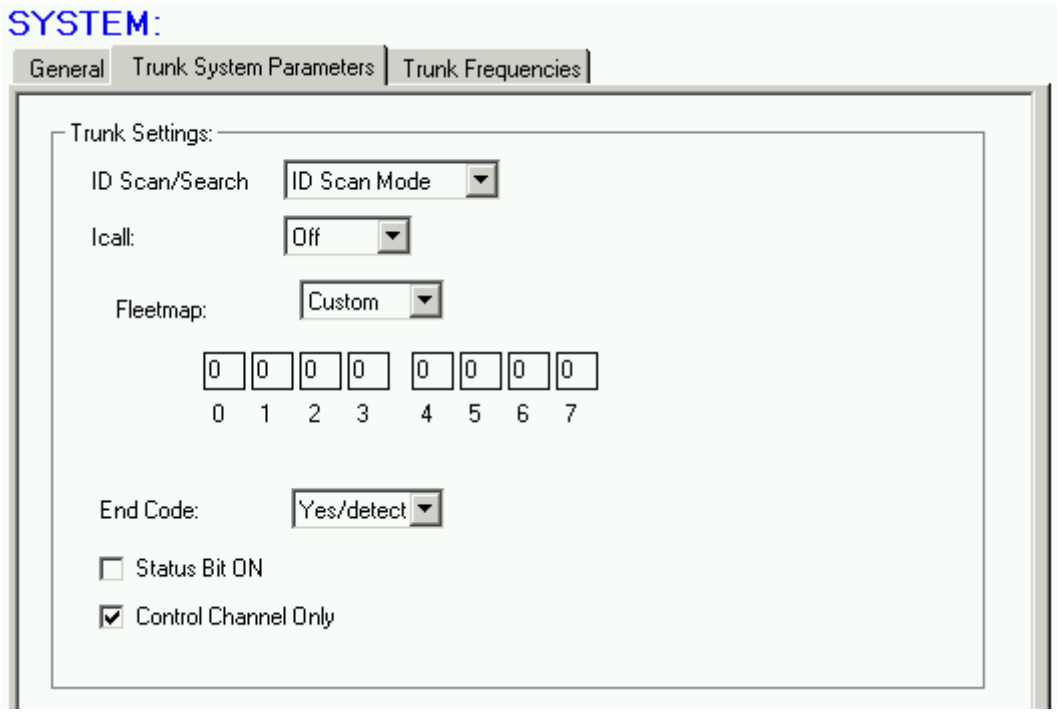
For your convenience, the system browser shows unique icons per system type:



In this screenshot a conventional, Motorola, Edacs and a LTR systems are loaded.

2.3.2 Trunk system Parameters

For every trunk system, several parameters can be set:



Refer to BCD396T user manual for more information.

General:

Motorola VHF/UHF: you must program a base, offset and step frequency (see next page).

Motorola Type 1: for a Motorola type 1 a fleetmap must be selected or a custom fleetmap must be build.

For a TYPE 1 system it is very important that the trunk system is setup correctly before any trunk id's are uploaded to your scanner. Depending on the fleetmap settings the scanner may not accept some trunk id's.

Some Type 1 size codes require more then one block. If you enter size code 12 in block 0 the software will automatically set block 1 to size 12.
You can only program size 12 id's in block 0,2,4 and 6.

Size Code	Required blocks	Blocks
12	2	0,2,4,6
13	4	0,4
14	8	0

2.3.2.1 Motorola VHF/UHF systems:
Explanation of base/step/offset parameters:

For a type 2 VHF or type 2 UHF you must program base/step/offset parameters.

For properly tracking a type 2 VHF/UHF system, the scanner needs channel number information. The tracking process is controlled by sending channel numbers instead of frequencies. Once the scanner knows one combination of frequency and channel number it will track the system because it can calculate all other frequencies using the step setting and the channel number it receives from the traffic channel.

You must know at least one frequency used in the trunk systems AND the channel number assigned to that frequency.
The step is normally predefined for the frequency range.

Example:

If the system you want to program uses a frequency 425.250 (step 25 kHz) and the channel number assigned to that frequency is 402 then you must program:

Base: 425.250
Step: 25
Offset: 402

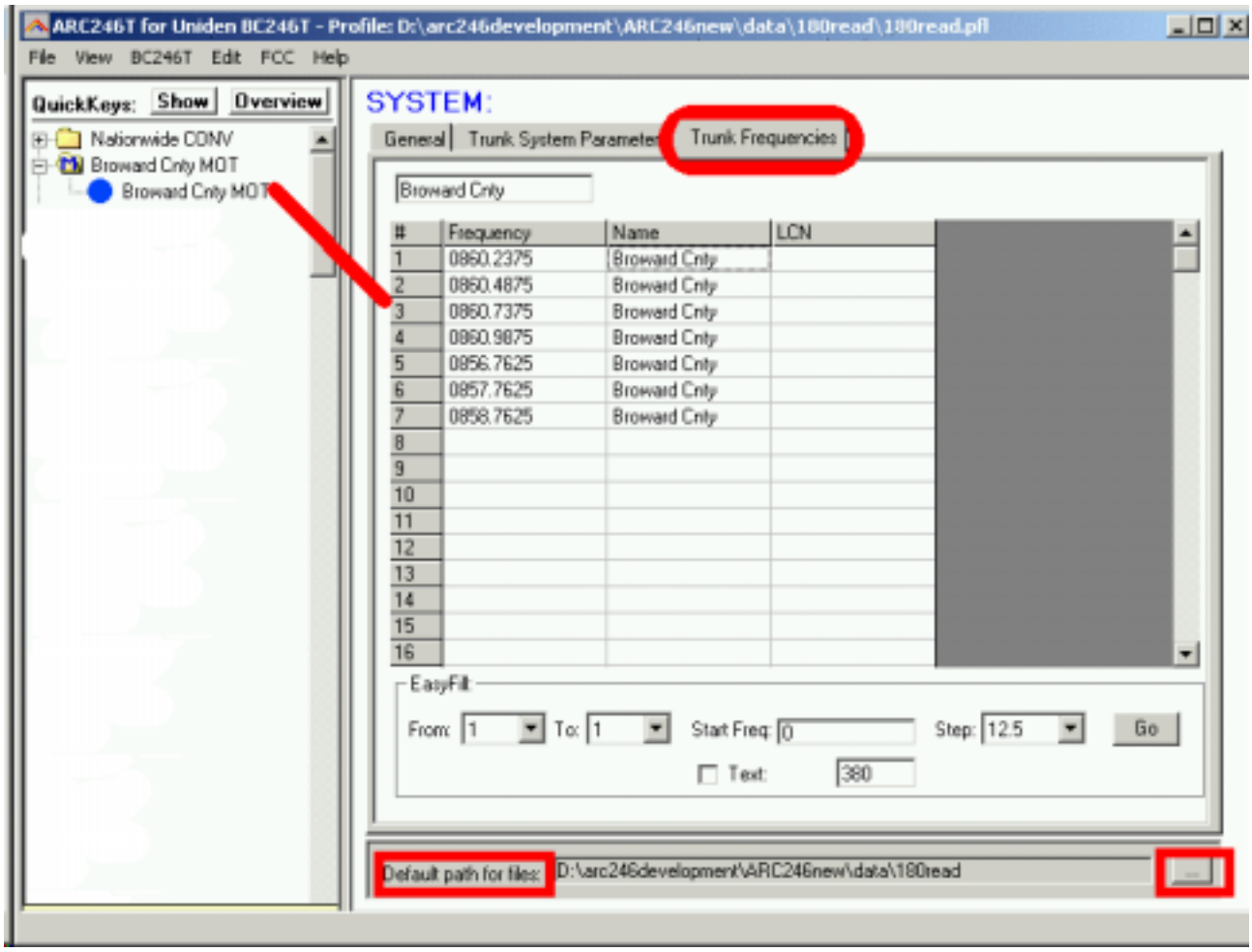
Because you know the step and channel number you can also use different settings, in the table below all given examples of base/step/offset will have the same effect:

	Example 1	Example 2	Example 3	Example 4
Frequency	425.250	425.200	420.000	430.200
Step	25	25	25	25
Offset	402	400	380	600

The offset channel has a range of 380-600.

2.3.3 Trunk frequencies

Click the Trunk frequencies tab to enter or paste trunk frequencies:



-

The Name column is NOT sent to the scanner, this information is only stored in system files.

For Edacs and LT systems the LCN number must be entered. Motorola systems do not use LCN information. If you do not enter a LCN number, the software will automatically use the channel numbers as LCN. For LCN information consult the database at www.radioreference.com
If the LCNs are not correct, you scanner cannot 'track' the system properly.

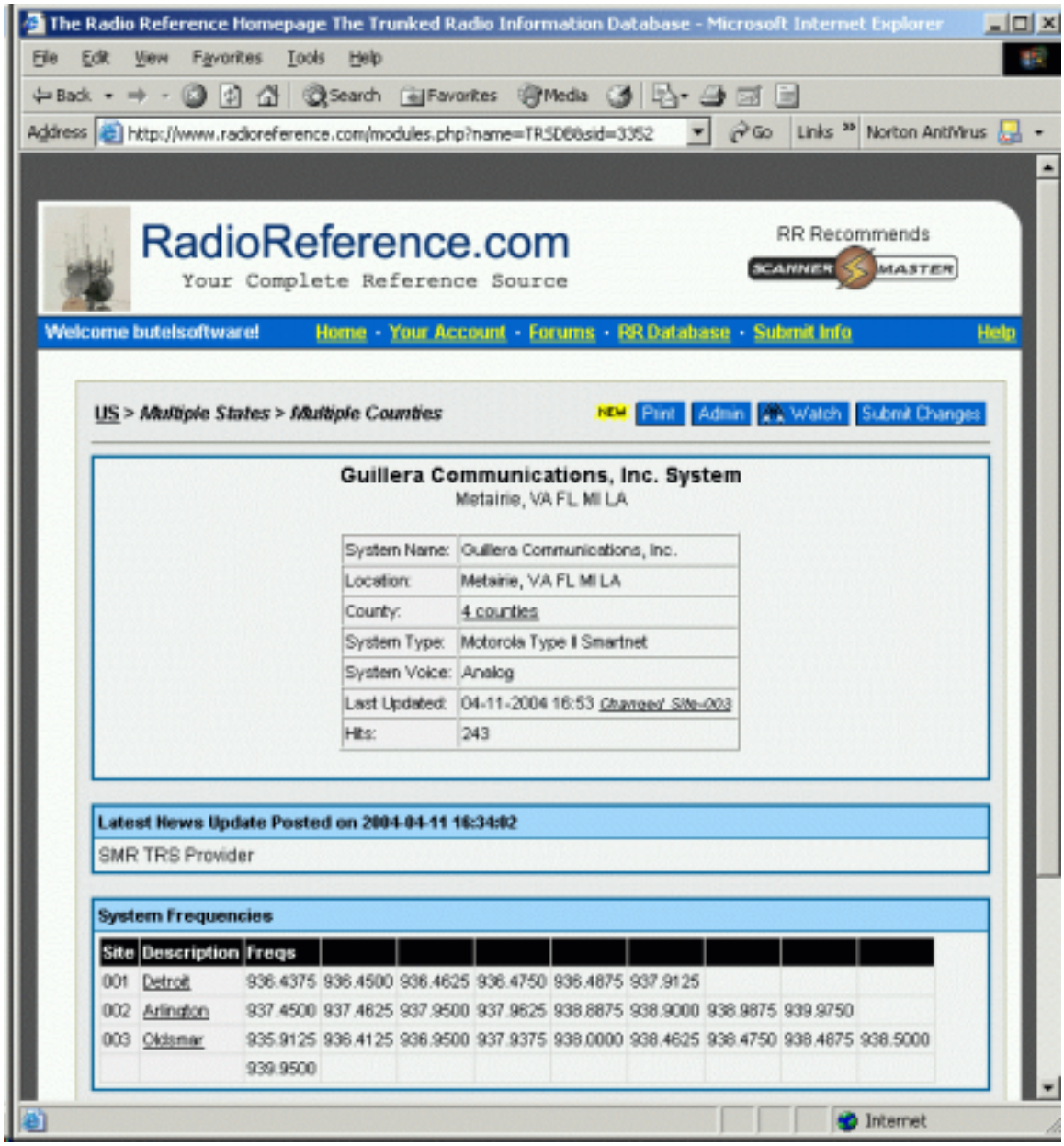
ARC396 has a powerful option to 'paste' frequencies from popular websites like www.radioreference.com , see section 2.3.4

2.3.4 Pasting frequencies from a website:

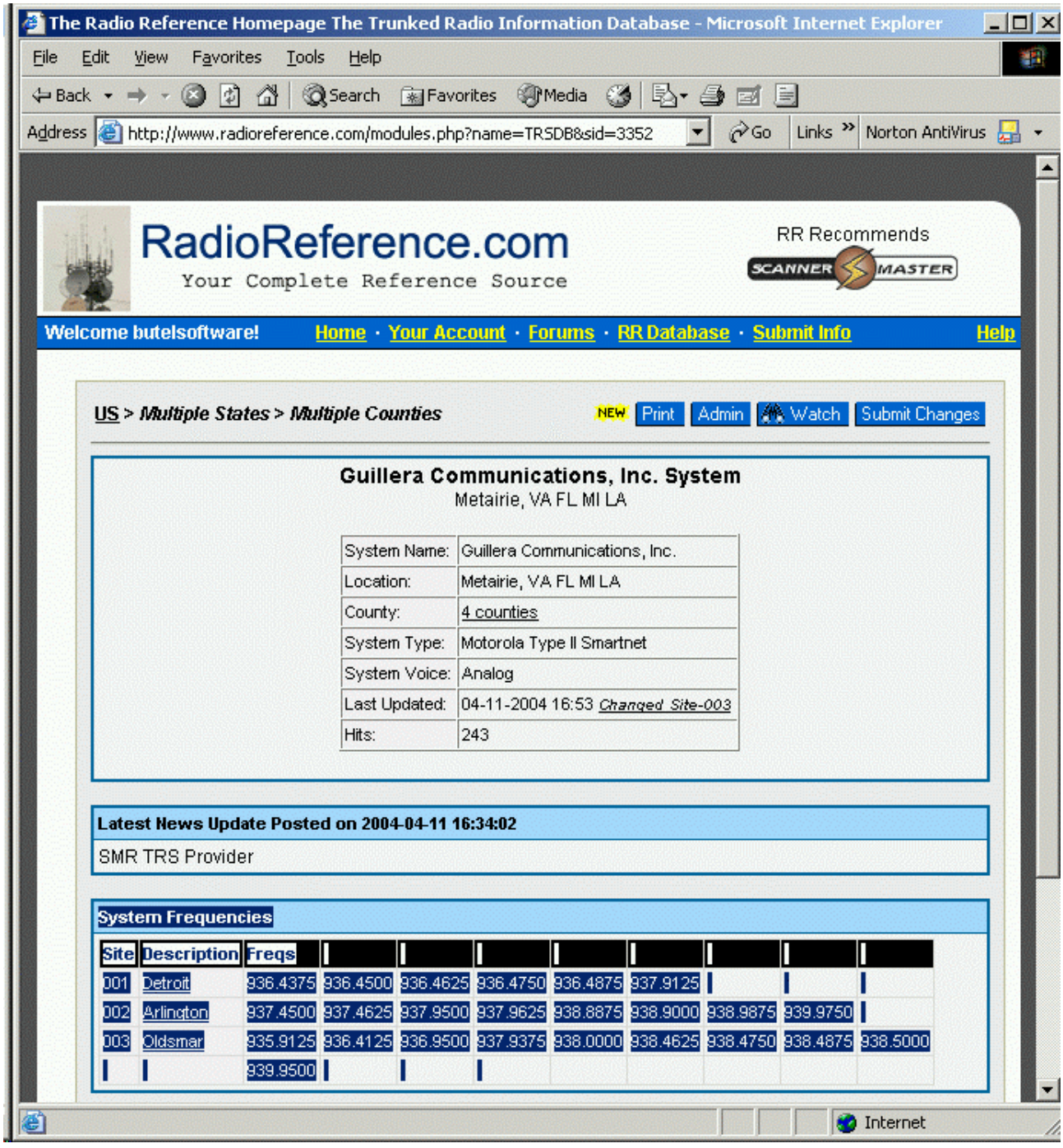
While setting up trunk systems, you have probably spent a lot of time typing over frequency lists. ARC396 has a new paste option that will do this for you.

First locate a website with trunk frequency information, in the sample we use a trunk system website found at:
http://www.radioreference.com/modules.php?name=TRSDB&sid=3352

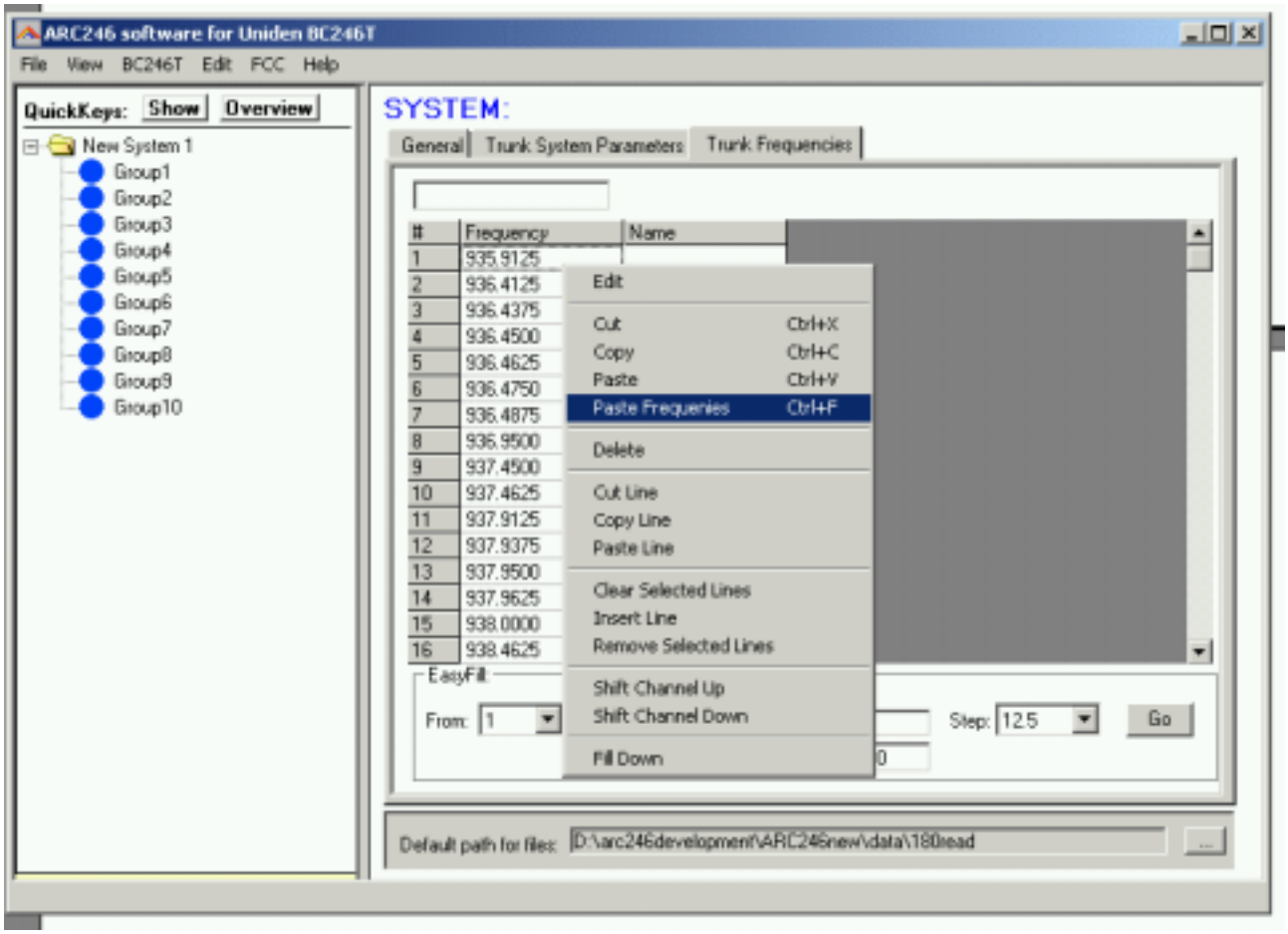
We want to copy the frequencies from this website into ARC396.



The first step is to highlight the frequencies at this website by holding down the left mouse button, then select CTRL-C or Edit _ Copy in your browser. (There are 24 frequencies used in this system)



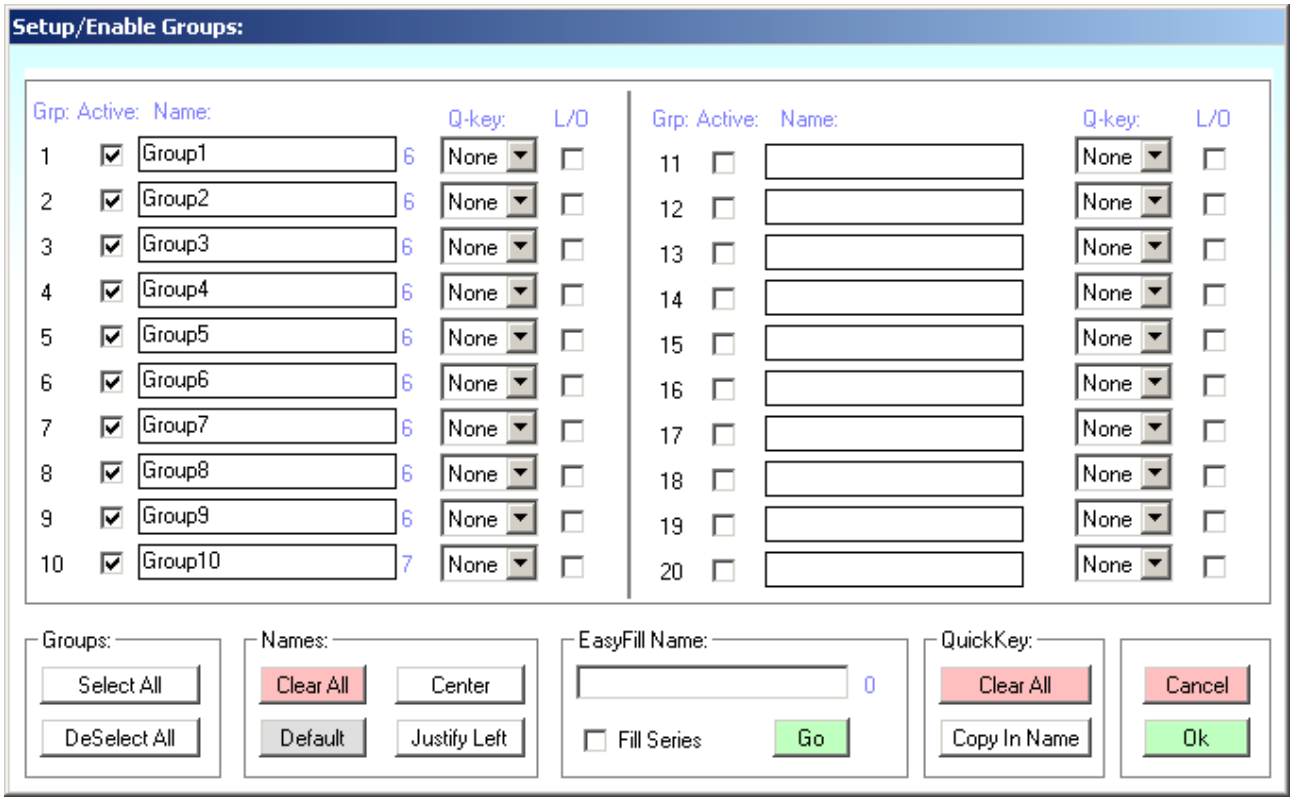
Return to ARC396 and in the Trunk frequency editor click the right mouse button and select ‘paste frequencies’ and all frequencies are pasted in the grid:



Duplicates are automatically removed. Paste Frequencies will also filter out ctcss subtones.

2.3.5 Setting Up groups in a system

After a new system is created you can setup the groups that belong to that system. In the systembrowser select 'Edit groups' from the right mouse button menu:



In this window you setup Groups:

First select the groups that you want to add to the system. This is done by clicking the 'active' box. A system can store a maximum of 20 groups.

Important: Only data of 'active' groups is stored in a systemfile. If you disable groups, the data from that group is lost.

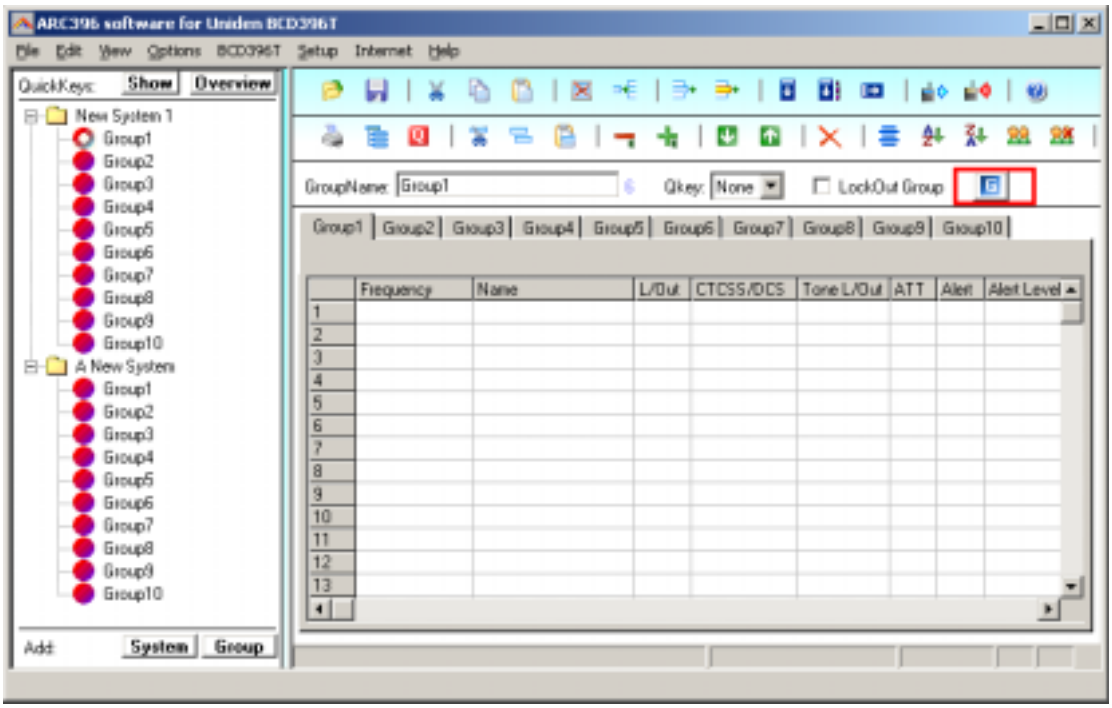
Per group you can set a groupname, a Quickkey and the Lockout flag.

Changing number of channels:

In the main channel editor use the C+ and C- toolbar buttons to increase or decrease the number of channels per group. ARC396 will automatically adjust the number of channels when data is pasted in a group.
Empty channels are not sent to the scanner and will not waste scanner's memory space.

2.3.6 Adding and Deleting groups from a system:

Add a group to existing system:
Once a system is created you can also add new groups using the system browsers right mouse button menu. (Add Group). A system can only hold 20 groups.
Systems can also be added in the Group Editor (Setup _ Groups), click the active option for groups you want to add to a system.
You can also click the 'G' button in the group toolbar:

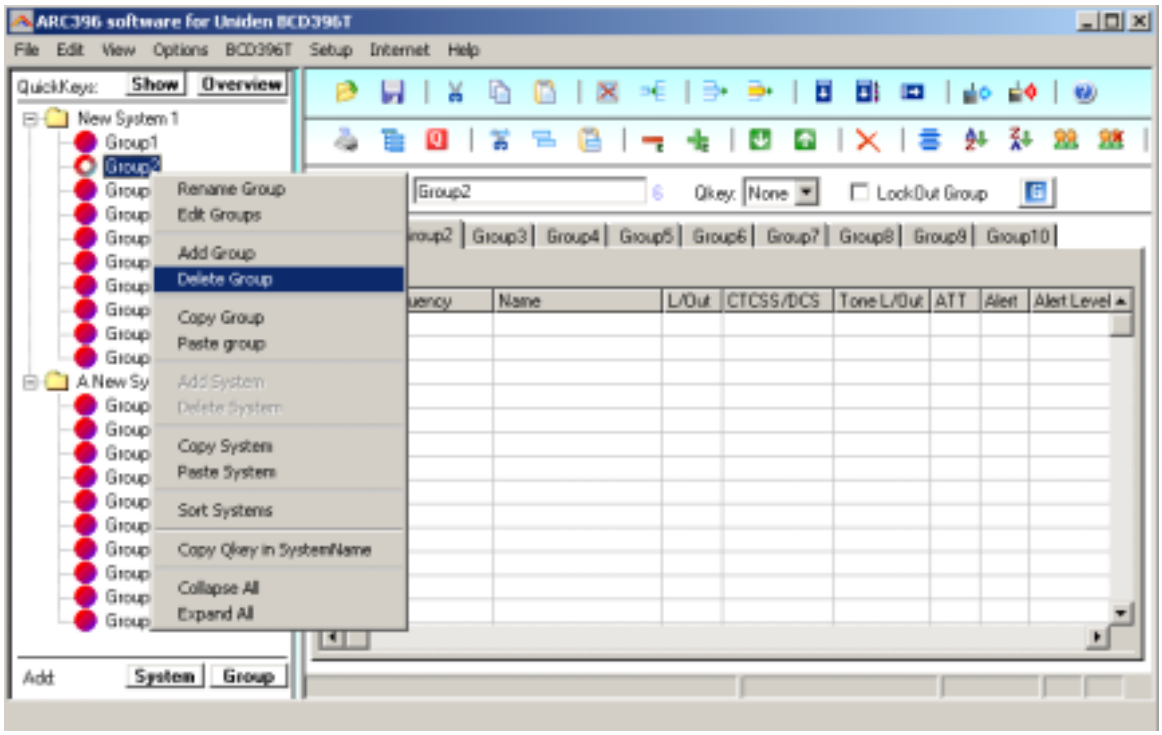


Delete a Group from a system:

Open the Group Editor (Setup _ Groups) and uncheck the ‘active’ option for groups you want to remove from a system.

WARNING: If there is data is stored in that group, data is lost when ‘active’ is unselected!

You can also use the right mouse button menu:



2.3.7 QuickSave:

Systems are stored in separate files. To avoid that you need to manually save all systems, a QuickSave option was developed.

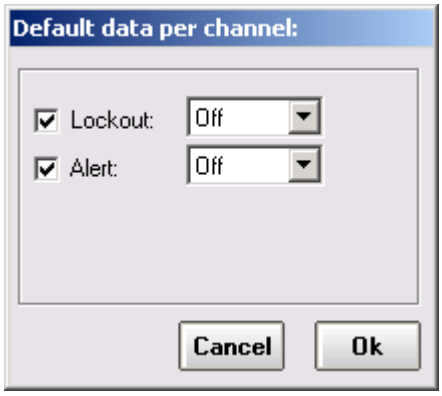
A system file can have a different filename than the systemname!
In the ‘system’ editor the actual filename and location is shown.

When you select QuickSave the software first checks if a filename already exists in the software (shown in system editor screen). If there is no filename stored, the software uses the systemname as filename (only first 16 characters). If systems have the same name, the filename is automatically modified so systems with the same name will not use the same filename.

When you save a profile, the software will always first execute a Quicksave to make sure that all systems are stored in a file.

2.4 Default data:

When you enter a frequency or ID and you press ENTER the other cells of that line are automatically programmed depending on your custom settings (default channel data). You can customize the default data: select SETUP _ SETUP DEFAULT DATA. A new window is shown:



In this window you set the default data that is put in the grid when you press enter. All parameters that have the check box selected will be put in the grid. By using this option the software will take care of programming default data.

Mode and step column: By default both step and mode are set to auto, so the scanner uses the internal database to lookup mode and step.

Tip: programming your personal preferences in the default data and setup a custom bandplan will save you time while programming new frequencies/id's.

When you press <enter> the software will automatically go to the next cell.

2.5 Sort channels

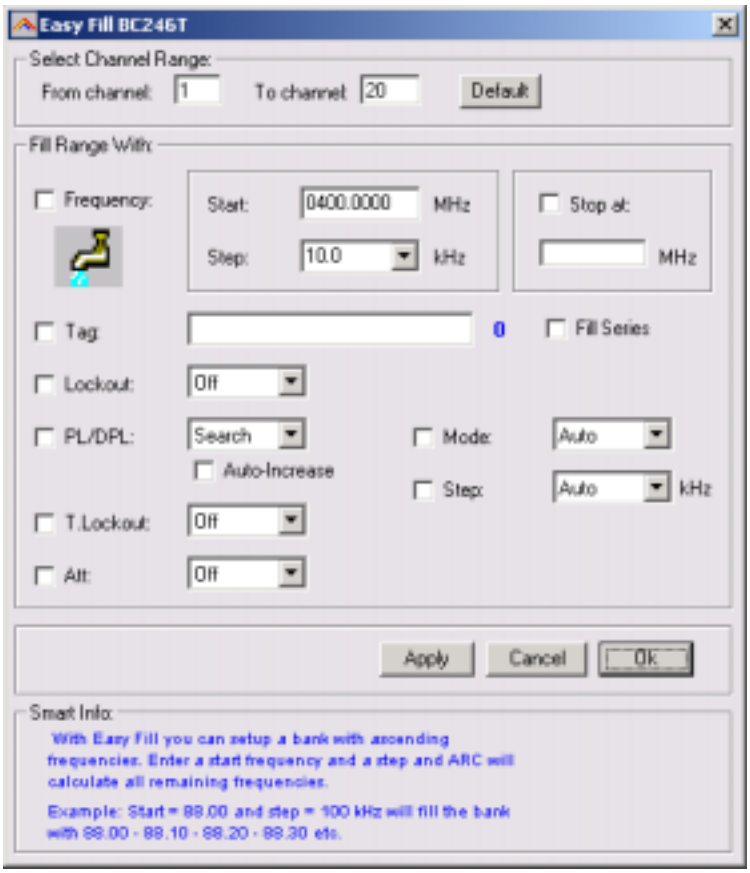
Memory channels can be sorted. You can either sort ascending or descending. You can only sort within a single group. In general scanners will scan faster when channels in a bank are sorted.

Sort a range of channels: highlight the range of channels you want to sort, and then select the sort option. Only the selected range of channels will be sorted.

2.6 EasyFill

EasyFill is a simple but powerful option that lets you program data in a range of channels with only a few mouse clicks.
Additionally you can use EasyFill for quickly program a range of frequencies in a memory bank so you can use a memory as a search bank.

Select EasyFill from the Options menu or use the EasyFill toolbar button to display the EasyFill window:



In the top frame the channel range is selected. DEFAULT will set the start and end channel of the selected bank. ALL CHANNELS will set all 1000 channels.

In the 'Fill Range With' frame you select the data you want to program in that range. If you want to set the mode for all selected channels to NFM select the MODE check box then select NFM and select APPLY, this will program WFM in all selected channels. You can select more than one check box.

If the Frequency check box is selected you can set a start frequency and a step. The software will automatically calculate the frequencies for the selected channel range.
Example: Frequency is set to 88.000 MHz, step is set to 50 kHz and channel range is 1-100. If you select APPLY the software will program 88.000 in channel 1, 88.050 in channel 2, 88.100 in channel 3 etc.

Fill series: for the TAG option you can also set the fill series option. Fill series will search for a number in the tag and use that number to ‘calculate’ the tags in the selected channel range.
Example: in the tag box the tag is set to ‘Police 1’. The channel range is set to 1-100.
If fill series is selected, the software will automatically program ‘Police 1’ in channel 1, ‘Police 2’ in channel 2, ‘Police 3’ in channel 3 etc. See also section 2.9.

The number of characters of the tag box is shown in blue.

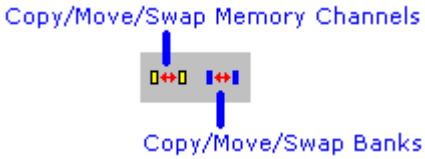
2.7 Using the clipboard

In the memory editor grid you can use the standard Windows clipboard options. In the toolbar shortcuts are available for cut, copy and paste options. You can also use the keyboard shortcuts CTRL C, CTRL X and CTRL V.
Use these options to paste data from other applications like Excel.

An additional clipboard option is available that will automatically select entire lines (Cut line, copy line and paste line).
To use these extra options, click any cell of a memory channel then select cut/copy/paste line. To paste in a different memory channel, select any cell in that memory channel, then select paste line, ARC396 will automatically align the pasted text.

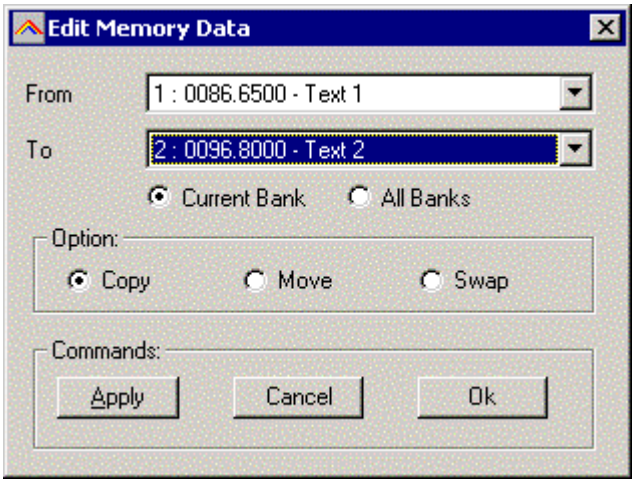
Important: while pasting data make sure the data is valid for the column you want to paste data. Example: you cannot paste WFM in the step column.

2.8 Copy / Move / Swap Memory channels / Groups



Memory channels or entire groups can be easily copied, moved or swapped within a system.

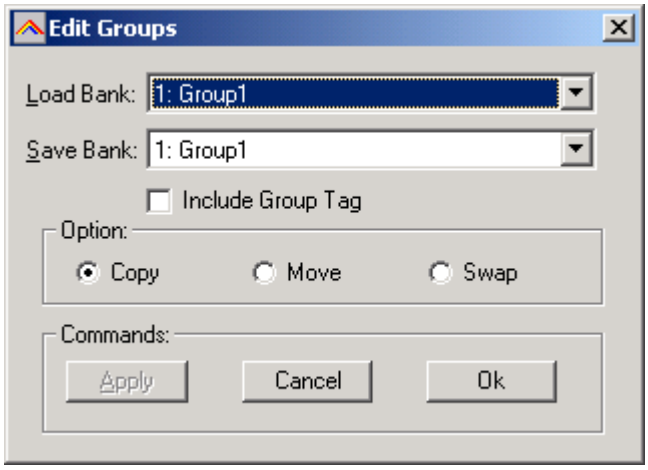
2.8.1 Copy/Move/Swap Memory Channels:



The 'from' and 'to' list boxes will automatically display the channel number, frequency and tag. Channels that are empty (no frequency programmed) are indicated as Empty.

Current Bank: copy/move/swap channels in the active bank
All Banks: copy/move/swap channels in all Banks

2.8.2 Copy/Move/Swap groups within a system:



Use this window to copy/move/swap entire memory groups.

The 'Include Bank Tag' options will also copy/move/swap the bankname.

2.8.3 Copy/paste groups between systems

In the systembrowser you can copy/paste groups. Click on the group you want to copy and select the right mouse button. Select ‘Copy Group’

Next select the system where you want to paste the data, and select ‘Paste group’ in the right click menu.

IMPORTANT: you can only copy/paste groups that are the same system type. So for example you can not copy a Motorola group into an Edacs system etc.

2.8.4 Copy/paste systems

In the systembrowser you can copy/paste systems. Click on the system you want to copy and select the right mouse button. Select ‘Copy System’

Next select ‘Paste System’ and system will be added to the systembrowser.

2.9 Fill Down / Fill Series

The Fill down and fill series options are used to copy the same data into a range of channels. Fill series will auto calculate ascending numbers in text tags (see examples below)

This example will show fill down:
Channel 10 contains Trunk=OFF, Delay Time = 4 seconds and Record =ON

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500				
12	0400.1000				
13	0400.1500				
14	0400.2000				
15	0400.2500				
16	0400.3000				
17	0400.3500				
18	0400.4000				
19	0400.4500				
20	0400.5000				

We want to copy this data to channels 11-20; first you must highlight the channel range:

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500				
12	0400.1000				
13	0400.1500				
14	0400.2000				
15	0400.2500				
16	0400.3000				
17	0400.3500				
18	0400.4000				
19	0400.4500				
20	0400.5000				

Now select the FILL DOWN option:

	Freq. (MHz)	Tag	Trunk	Delay Time	Record
10	0400.0000		Off	4	On
11	0400.0500		Off	4	On
12	0400.1000		Off	4	On
13	0400.1500		Off	4	On
14	0400.2000		Off	4	On
15	0400.2500		Off	4	On
16	0400.3000		Off	4	On
17	0400.3500		Off	4	On
18	0400.4000		Off	4	On
19	0400.4500		Off	4	On
20	0400.5000		Off	4	On

The software will automatically fill the selected range, using the data at the top of the selected range.

Fill Series:
Fill series only works in the tag column. It will look for number information in the tag and auto increase the number in ascending channels.

Example: Channel 10 contains the tag 'UHF Channel 431':

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	
12	0400.1000	
13	0400.1500	
14	0400.2000	
15	0400.2500	
16	0400.3000	
17	0400.3500	
18	0400.4000	
19	0400.4500	
20	0400.5000	

Highlight the channels where you want to copy the data to:

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	
12	0400.1000	
13	0400.1500	
14	0400.2000	
15	0400.2500	
16	0400.3000	
17	0400.3500	
18	0400.4000	
19	0400.4500	
20	0400.5000	

Now select the FILL SERIES option and ARC396 auto calculates the new tags:

	Freq. (MHz)	Tag
10	0400.0000	UHF channel 431
11	0400.0500	UHF channel 432
12	0400.1000	UHF channel 433
13	0400.1500	UHF channel 434
14	0400.2000	UHF channel 435
15	0400.2500	UHF channel 436
16	0400.3000	UHF channel 437
17	0400.3500	UHF channel 438
18	0400.4000	UHF channel 439
19	0400.4500	UHF channel 440
20	0400.5000	UHF channel 441

2.10 Other Options:

PL/DPL Column :

You can directly enter a CTCSS or DCS tone. The software will auto correct your entry.
Tones that are entered and have a decimal are considered CTCSS tones. Tones without a decimal are DCS tones.

Tips: You can scroll the list with subtones by using the – and + keys.
Shift _ spacebar will scroll down.

2.11 Understanding how data is stored in ARC396

In ARC396 data is stored in a system file or in a profile file.

System File:

Stores a single system with all related parameters:

- system settings, including systemname, systemtype, QuickKey and website.
- group settings
- channel data (either frequencies or trunk id's and related channel parameters)

Profiles:

A profile stores a list of system filenames. A profile is 'just' a list of shortcuts to System files that can be loaded in one single operation instead of opening each a system file individually.

When you open a profile, all system files that are stored in that profile are opened.

So a profile does not contain system data, data is only stored in system files.

You can view profiles by using the Profile Creator (FILE _ Profile Creator)
Or you can open them as text file in Notepad.

Creating a new profile:

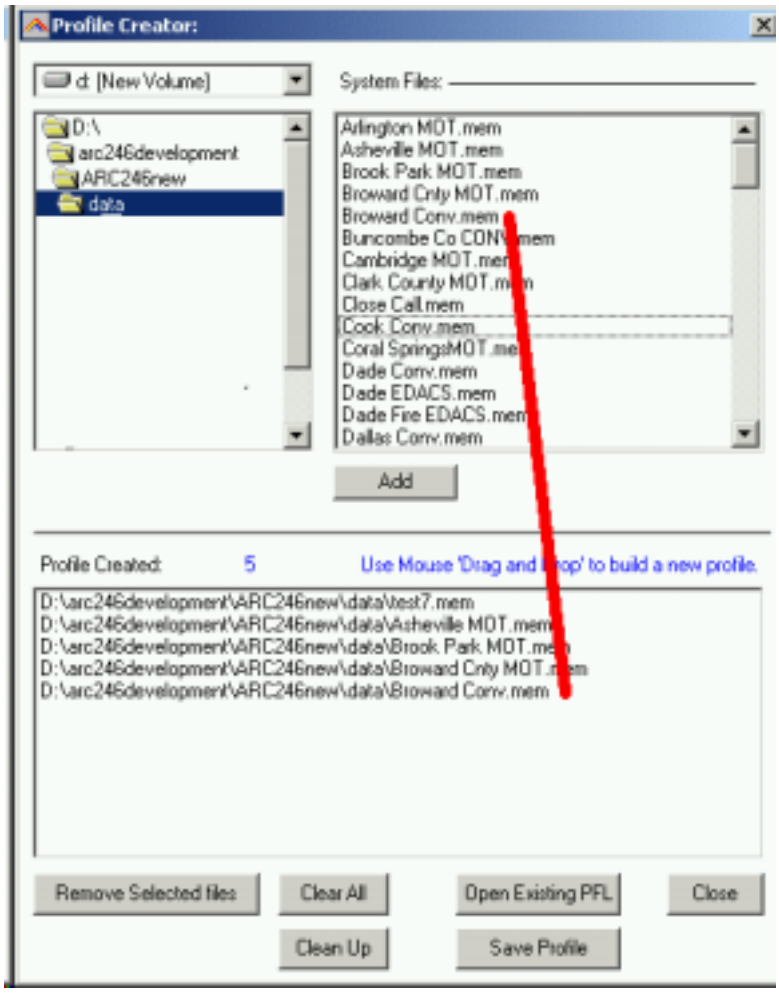
There are several ways to create a new profile:

1. Manually open all the systemfiles that you want to store in a profile. Every systemfile is added to the systembrowser. Use File Save Profile or File Save Profile As to store and create a profile.
2. Profile creator (see next item): With this utility you can browse your harddisk for systemfiles (.mem extension). The system files can be dragged and dropped into the profile.
3. read data from the scanner into the software and select FILE _ SAVE PROFILE AS. Saving a profile will automatically save your systems.

2.11.1 Viewing a Profile / Profile Creator:

The Profile Creator makes it easy to create a new profile; a profile is a collection of system files. A systemfile can be used in more than one system.

Important: Since a profile only stores the location of a systemfile and NOT the actual data, be careful when you move mem files into different folders.



Use the drive and folder navigation to locate system files (.mem) files. The lower part is the contents of the profile.

- You can drag and drop system files into the profile.
- Double clicking in the System Files section will copy a system file into the profile
- You can use Shift & CTRL buttons to make multi selections in the System Files list box.

‘Import All’ will import all ARC396 mem files from the active folder (maximum is 200 files).

You can also modify existing profiles, use the Open Existing PFL button to load existing profiles.

Clean Up: if system files were moved to different folders you can use this button to clean up the profile. This option will check all files in the profile are still at their stored location. If they are moved, that system file is removed from the profile.

2.12 Organizing QuickKeys

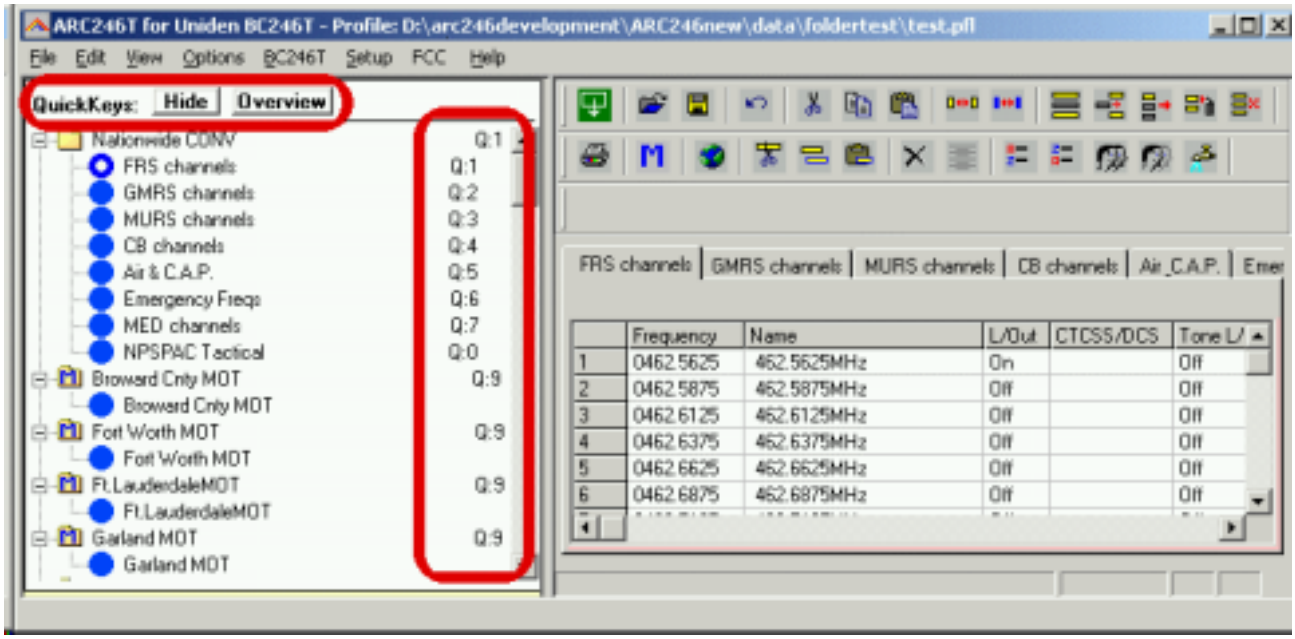
The BCD396T uses QuickKeys to 'combine' systems so they can be scanned together. Also groups within a system can be assigned to a QuickKey.

Group QuickKeys are numbers 1-9 and 0.
System QuickKeys are number 0-99 (BCD396) or 1-99 (BR330).

In the systembrowser you will find the QuickKey Menu with powerful options to display, print and organize your QuickKeys.

Displaying QuickKeys in the SystemBrowser:

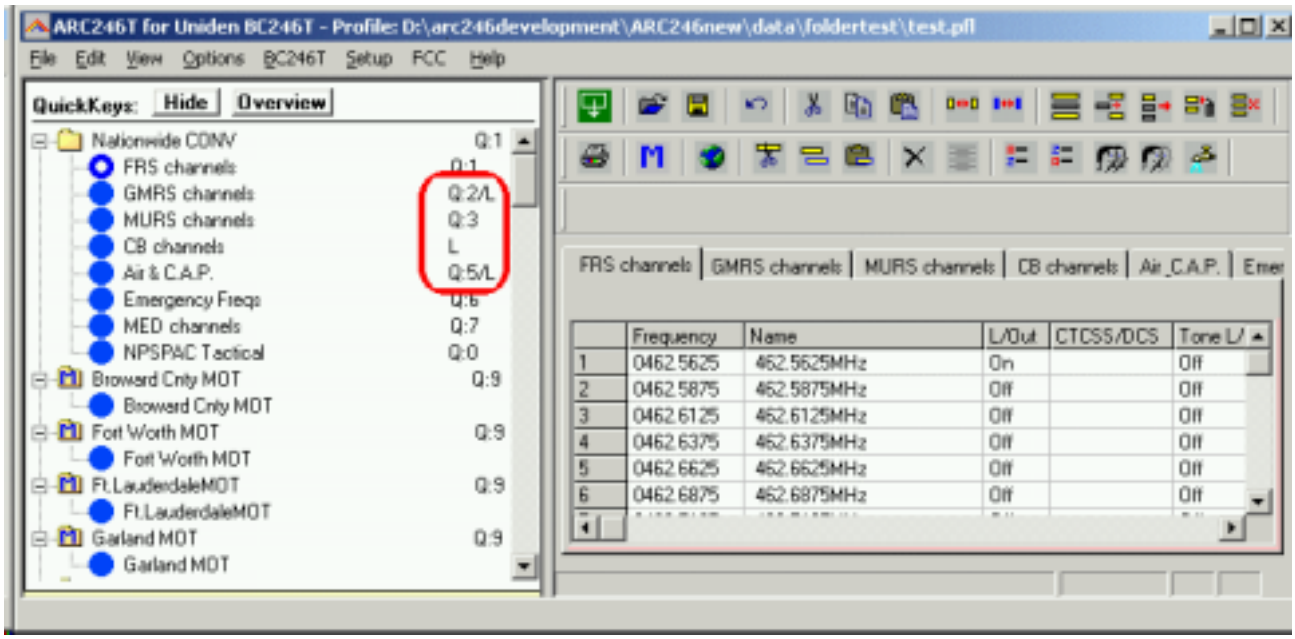
Press the 'SHOW' button and ARC396 will add all Quickkeys to the System and Group names in the systembrowser:



In this sample screenshot you can see that 'Nationwide CONV' has system Quickkey 1 assigned and Group 'CB channels' has Group QuickKey 4 assigned within the system.

Press 'Hide' to remove the QuickKeys from the systembrowser.

Within a system you can lockout groups, these groups will not be scanned even when the assigned Quickkey is selected. To indicate that groups have the lockout flag set a ‘L’ is displayed in the systembrowser:



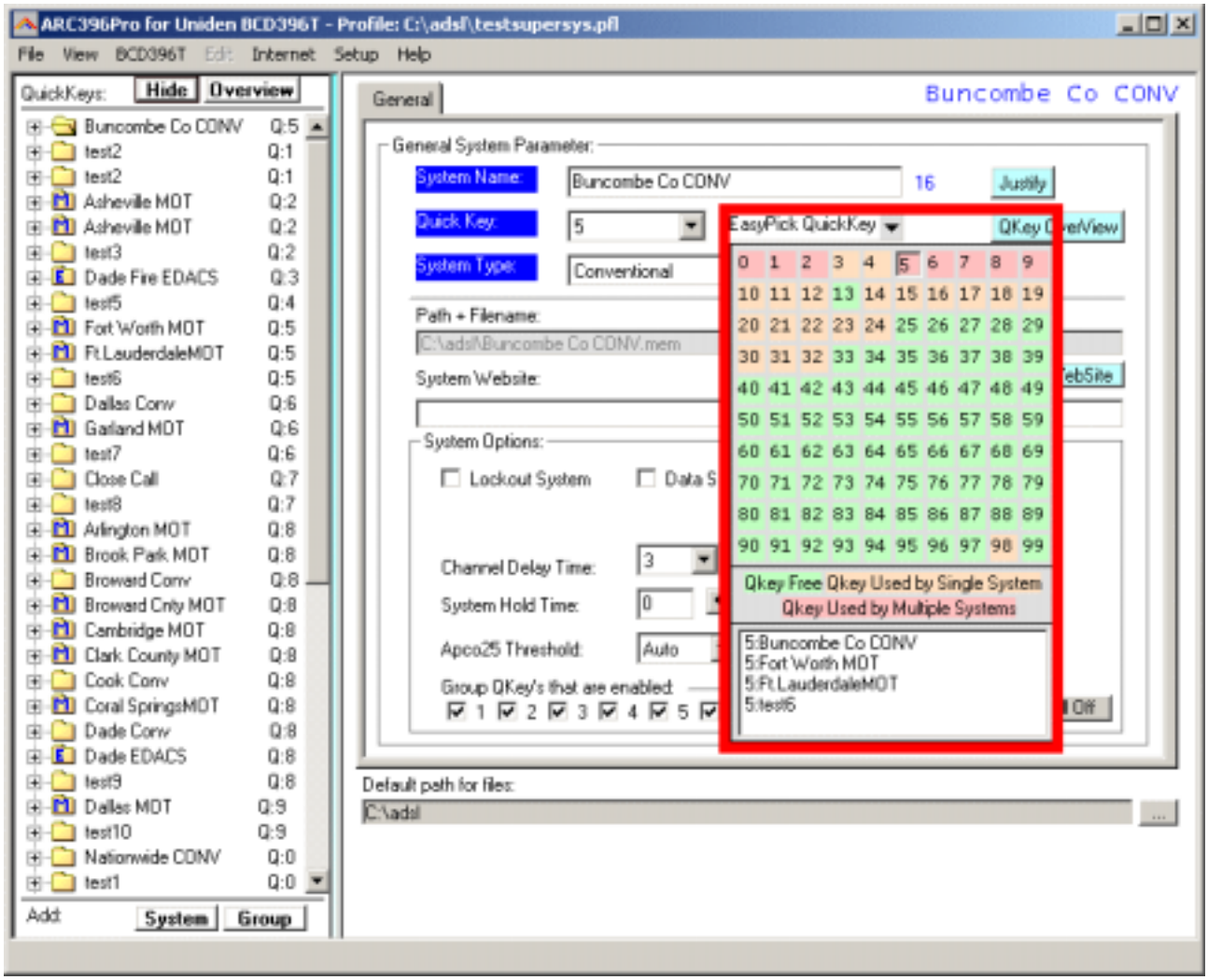
In this screenshot you can see that the ‘GMRS channels’ group has been assigned to QuickKey 2 but it has the Lockout parameter set so will not be scanned.

The group ‘CB channels’ has not been assigned to a QuickKey but has the Lockout flag set.

Group QuickKeys are set in the Group Editor. Select SETUP _ Groups in the menu to setup group names, QuickKeys and lockout flags.

To indicate that groups are empty ‘E’ is displayed in the systembrowser.

2.12.1 QuickKey EasyPick



To set a system Quickkey you can select the Quickkey number from the dropdown list. For you convenience ARC396 shows which System Qkeys are 'free' and displays an overview off all systems assigned to a key.

BR330: System Qkey 0 is reserved for race systems.

Move your mouse over the 'EasyPick Quickkey' box and a popup window is shown. This window displays the actual status of all system quickkeys and the systems assigned to a quickkey:

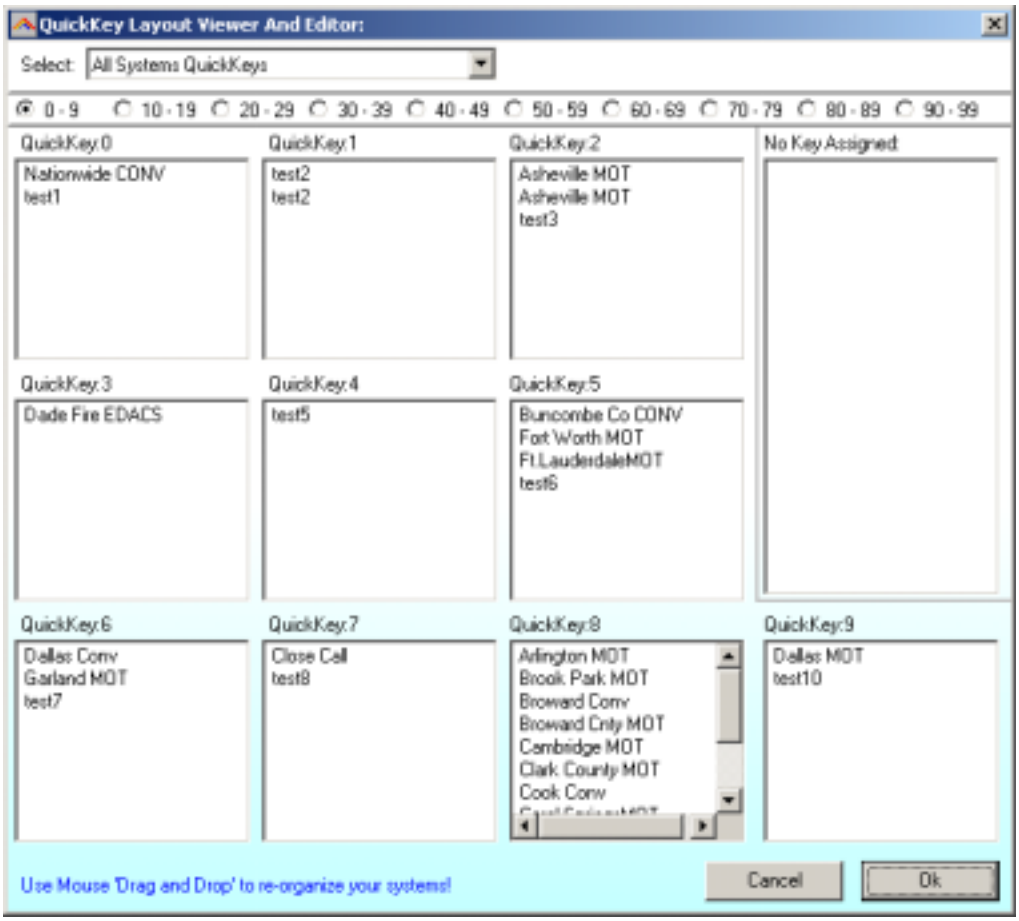
Green: Quickkey is not used by any system
Orange: Quickkey is used by only 1 system
Red: Quickkey is used by more than 1 system.

To set the quickkey **DOUBLE CLICK** the number.
Use a single **CLICK** to view all systems assigned to a Quickkey.

2.12.2 QuickKey Overview:

Click the 'Overview' button in the Quickkeys menu to show the Quickview Overview:

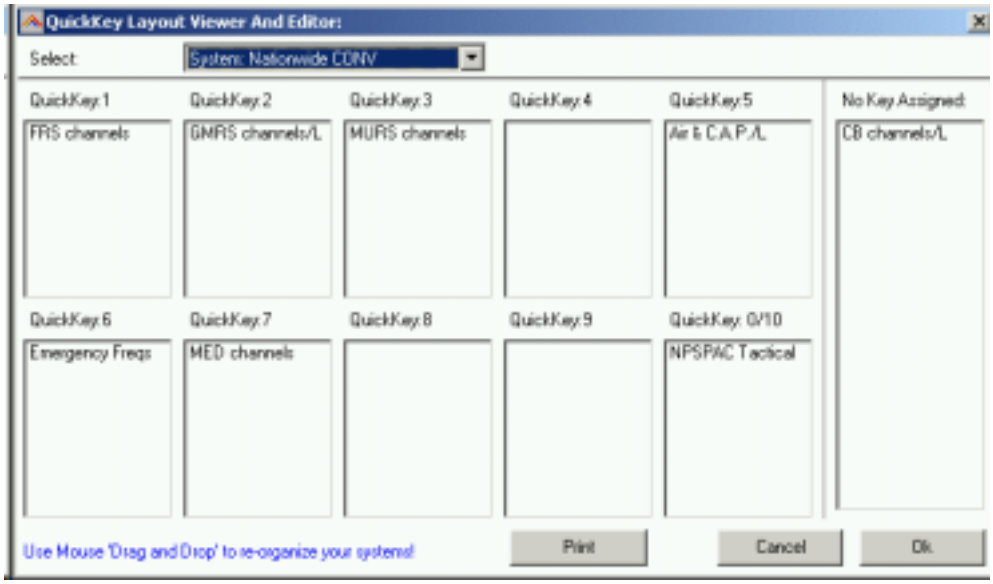
This window will show per quickkey the systems or groups that are assigned to that quickkey:



In the screenshot above you can see by Quickkey which systems are assigned to one of the quickkeys. The overview displays 10 Qkeys, there are a total of 100 System Qkeys. Use radio buttons to change the view.

You can simply use mouse drag and drop to move systems/groups into quickkeys.

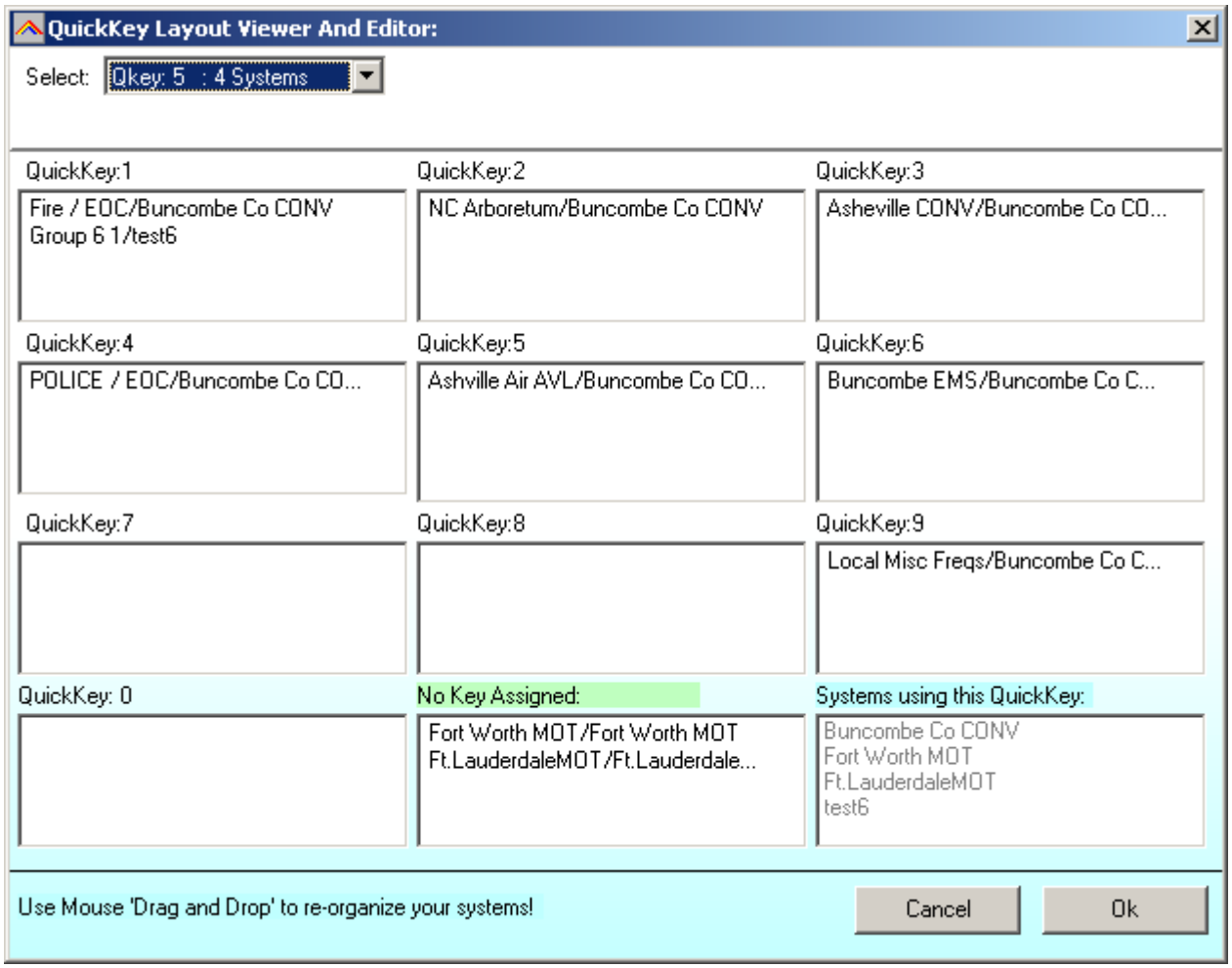
You can also view the group quickkeys per system, in the ‘select’ dropdown list, select the system you want to see:



You can simply use mouse drag and drop to move systems/groups into quickkeys.

2.12.3 View Groups per QuickKey

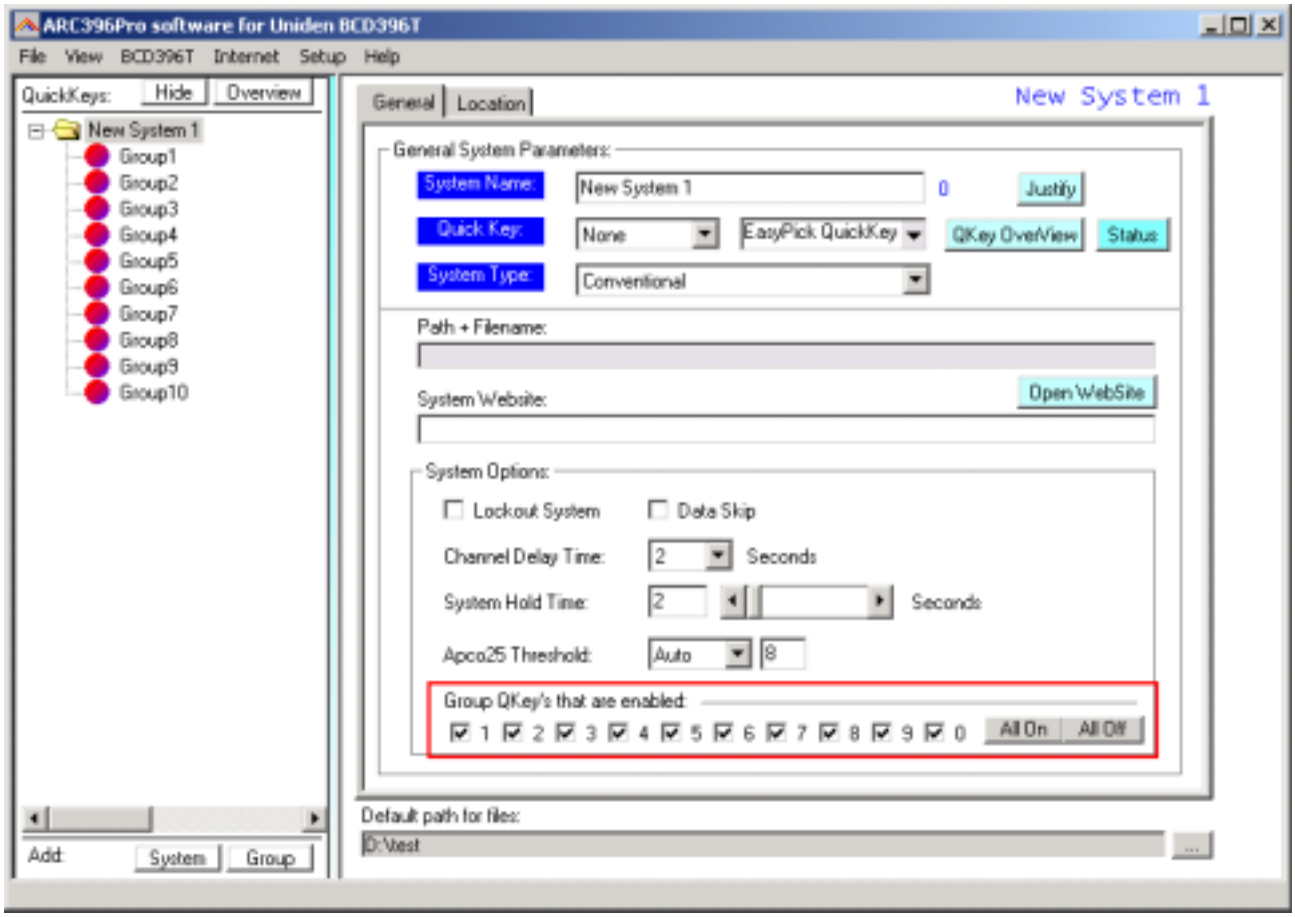
This overview will show all groups that are assigned to a System Quickkey, you can drag and drop groups to different Quickkeys. Double click 'Quickkeys' in system browser for this overview.



The select dropdown list will only show Quickkeys that are assigned to a Quickkey. You can drag and drop groups into group quickkeys. The overview also shows all the systems that are assigned to this System Quickkey.

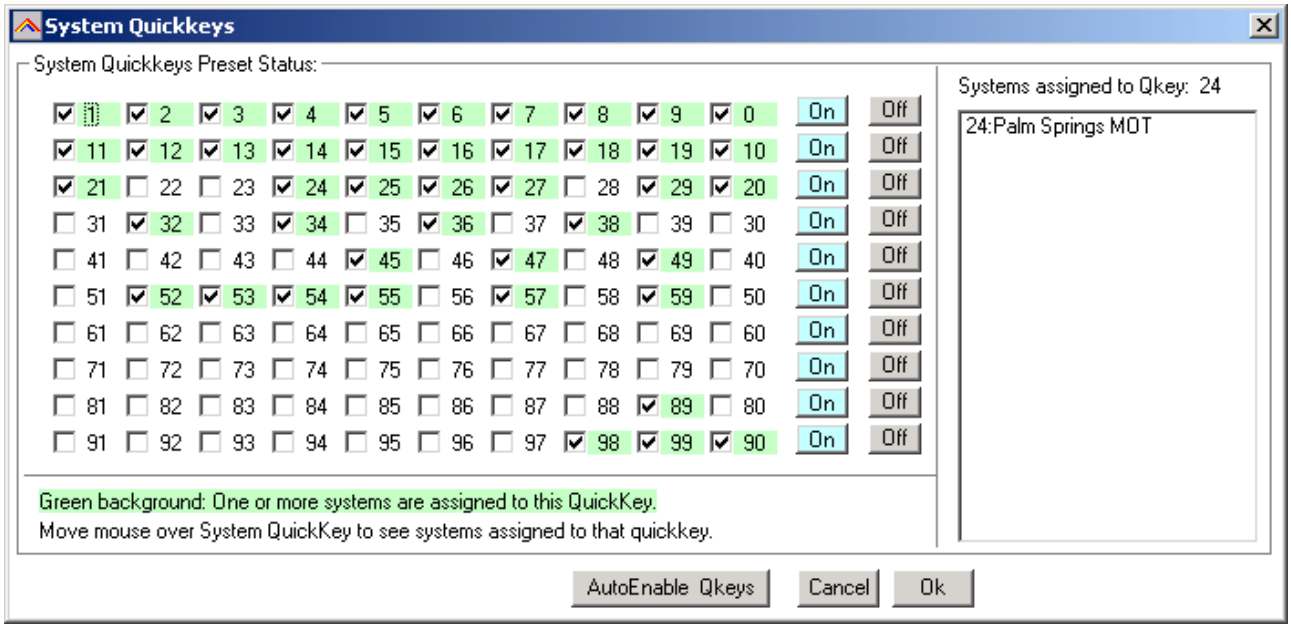
You can simply use mouse drag and drop to move systems/groups into quickkeys.

2.12.4 Enabling / disabling Group Quickkeys



You can preset the Group Qkeys on/off status. Tick the group Qkeys that you want to enable. If the quickkey background color is red, this means the quickkey is used by a group but not enabled.

2.12.5 Enabling / disabling System Quickkeys



You can select which systems quickkeys are enabled. Quickkeys with a green background are assigned to one or more systems but not enabled. By moving the mouse over the system quickkey number the software will list all systems assigned to that quickkey.

Auto-enable will enable all quickkeys that are assigned to one or more systems

The system quickkey status is stored in a profile.

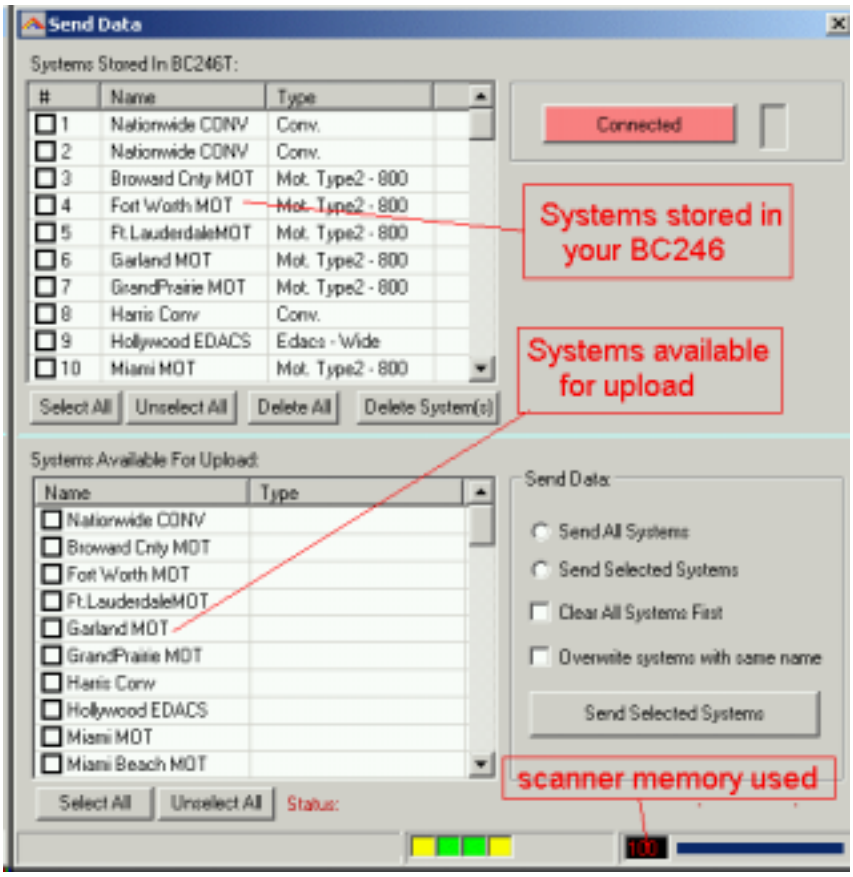
2.13: Uploading data into the scanner:

From the main menu select: BCD396T _ Send Data

Tip: you can also use the toolbar button or press F6.

Empty channels are NOT sent to your BCD396T.

A new window is shown:



You can upload 'All Systems' or 'Selected' systems. Make your selection in the system overview. Select All and Unselect All options are available.

Upload options:

'Clear All Systems first' : this option will erase all systems that are stored in your BCD396T. It will NOT reset your scanner so 'other' data is not lost.

'Overwrite Systems with same name': select this option if you want to 'replace' systems. The software first reads the systems that are stored in your scanner. If systems in the scanner have the same name the software will first erase those systems and then upload the new data.

Sending data can take up to 10 minutes. This is not a software limitation but a limitation of the scanners 'dynamic memory management'.

Your scanner will automatically sort systems by quickkey, this is fixed in the firmware.

Systems are uploaded in the order shown in the upload window, you can sort systems by name or quickkey by clicking the headers of the list of available systems. Also you can sort systems in the systembrowser.
By default the upload order is the same as shown in the systembrowser.

2.14 Import data and UASD files:

2.14.1 Import data

ARC396 can import data from various sources:

- import using the clipboard: you can easily copy/paste data from Excel or other database software that supports the clipboard
- import frequencies from text/html/csv files. Use the WebCatcher option to import from these files.
- CSV files: select FILE _ IMPORT _ CSV File. The csv file is opened in a grid. From the grid data can be copied/pasted into ARC396.
- ARC396 can import UASD files, see section 2.17

2.14.2 Import UASD files

See section 2.17

2.14.3 Batch import ARC396 mem files

You can import all mem files stored in a folder. Select File _ Import _ Batch mem files and browse to the folder containing the mem files you want to import.

2.14.4 Export data

ARC396 can export data:

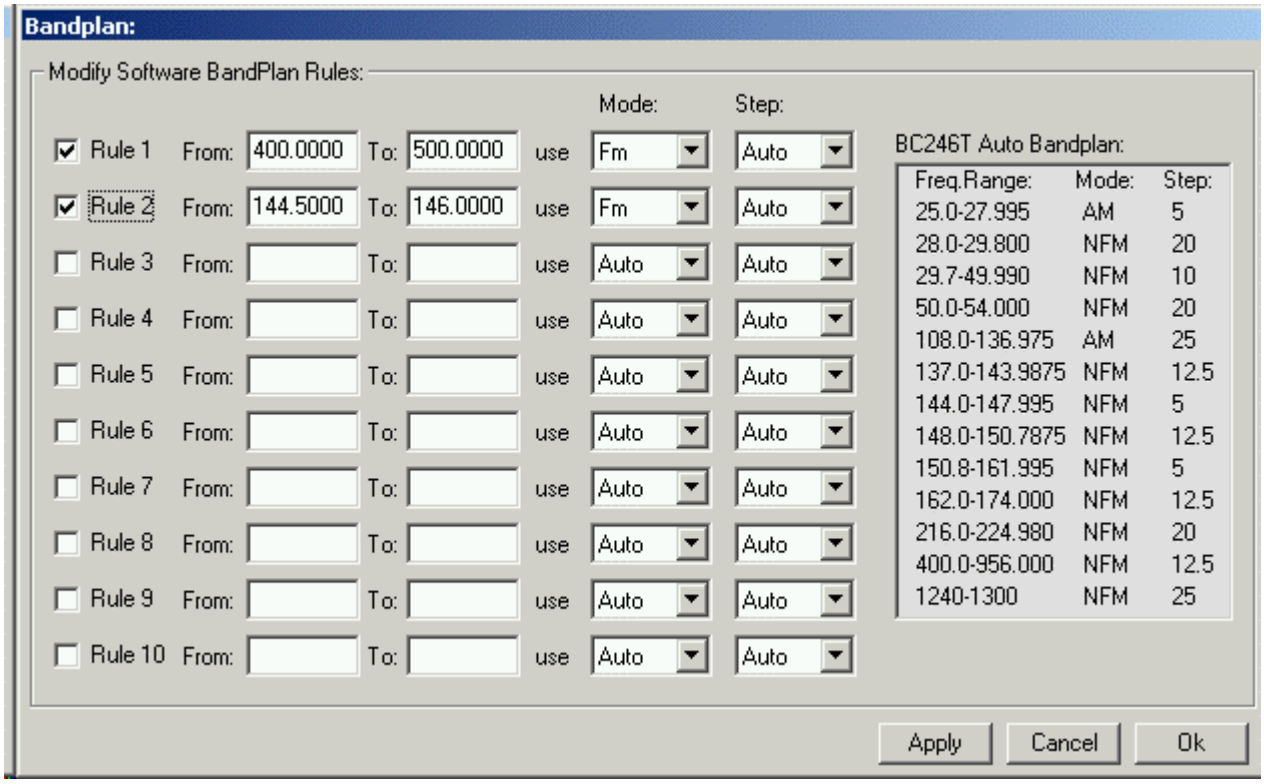
- CSV format: Select FILE _ Export CSV data, then select the data you want to export and ARC396 will create a CSV file
- ARC396 fully supports the clipboard so you can copy/paste data from ARC396 into many other applications.

2.15 Modify the software bandplan.

The BCD396T has a built in Automode bandplan, this means that when you enter a frequency, the scanner will select receive mode from a preset list (see page 10-11 of BCD396T user manual).

ARC396 also uses this bandplan, by default mode of new frequencies is set to Auto. You can change this behavior.

In the systembrowser click on a conventional group. In the menu select SETUP _ BANDPLAN:



The STEP column is only valid for BC246T, the BCD396T and BCD396T do not use step settings anymore.

Here you can modify the behavior for a frequency range. Rules must be enabled before they are used by the software. The bandplan is stored and remembered.

Rules are applied from top to bottom, rules can overlap.

In this example the software will select 'FM' instead of 'NFM' for the 400.0 – 500.0 MHz range and 144.500 – 146.00 range.

For your convenience the default bandplan is shown, in Auto mode this is the bandplan that is used, in this editor you program exceptions to the standard bandplan.

2.16 Instant Firmware Updates Notification

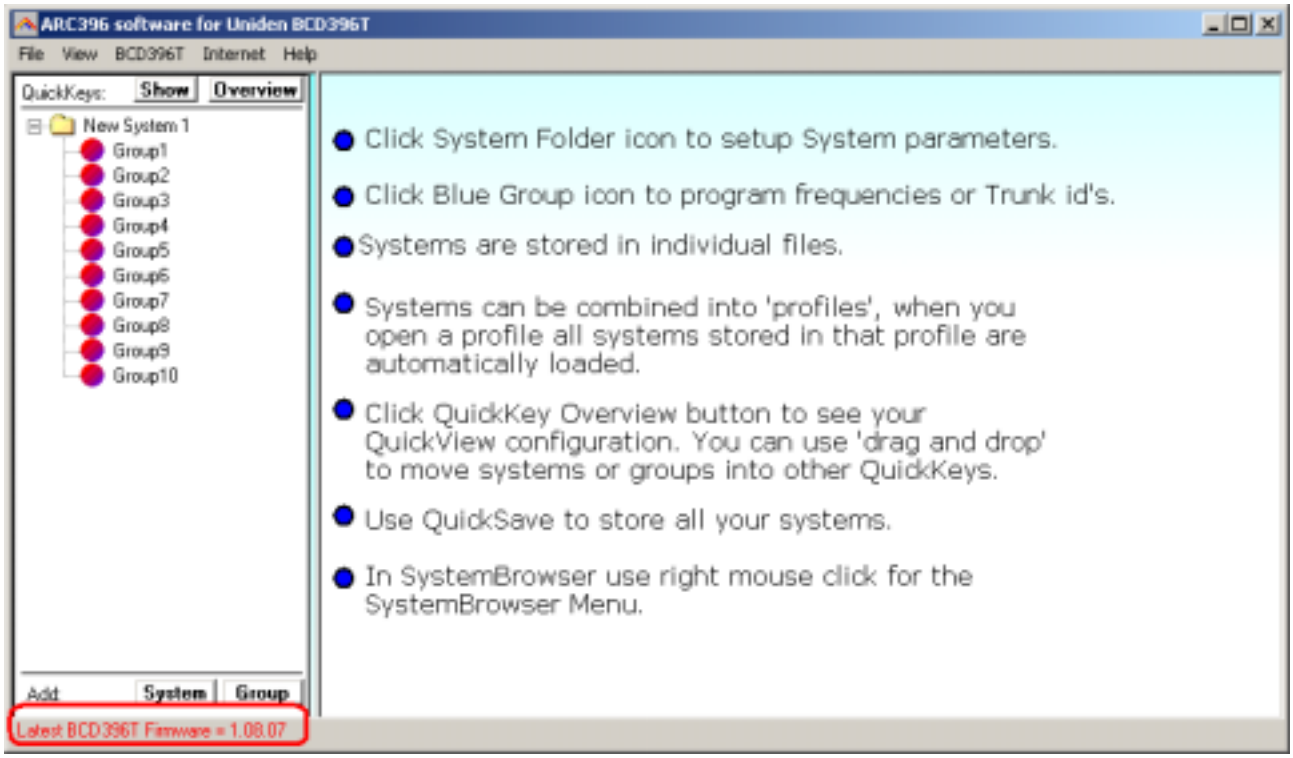
ARC396 can automatically check for Firmware updates.

To enable this option start ARC396 and click on a group in the systembrowser. In the menu select SETUP _ SOFTWARE OPTIONS and click the GENERAL TAB.

Select the option' Check for Firmware Update' and now close and restart ARC396.

If you run firewall software you must allow ARC396 to access the internet.

If newer firmware versions are available you will see a flashing warning:



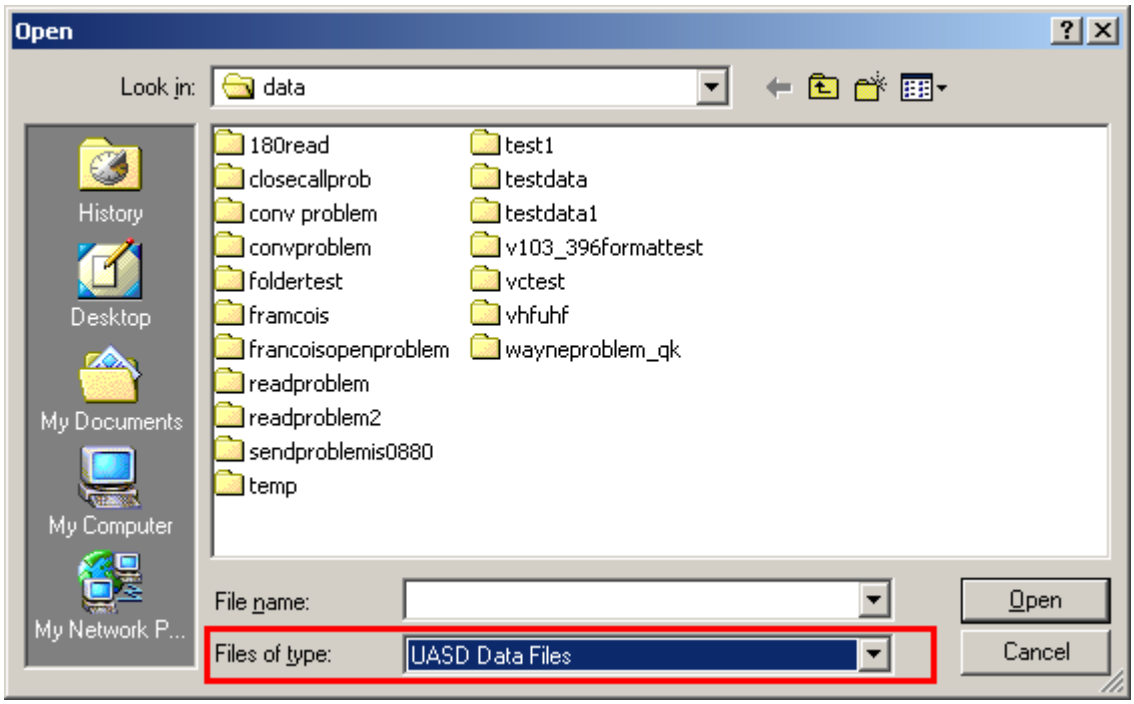
Double click the red text and the software will open the firmware download website at www.uniden.com

2.17 Opening / Importing UASD files

ARC396 can open or import UASD files. For your convenience you can also import a batch of UASD files for easy conversion to ARC396 file format.

Open a UASD file:

In the system editor select FILE _ OPEN SYSTEM, change the 'File Of Type' to UASD:



You can now browse for UASD files.

Import a UASD file:

Select FILE _ IMPORT _ UASD FILE and browse for the UASD file. To change the default directory for UASD files select SETUP _ SOFTWARE OPTIONS, click on FOLDERS tab and set the default folder for UASD files.

Batch Import UASD files:

You can easily import all UASD from the default UASD folder, select FILE _ IMPORT _ UASD BATCH IMPORT. This will import all files stored in the default UASD folder. To change the default directory for UASD files select SETUP _ SOFTWARE OPTIONS, click on FOLDERS tab and set the default folder for UASD files.

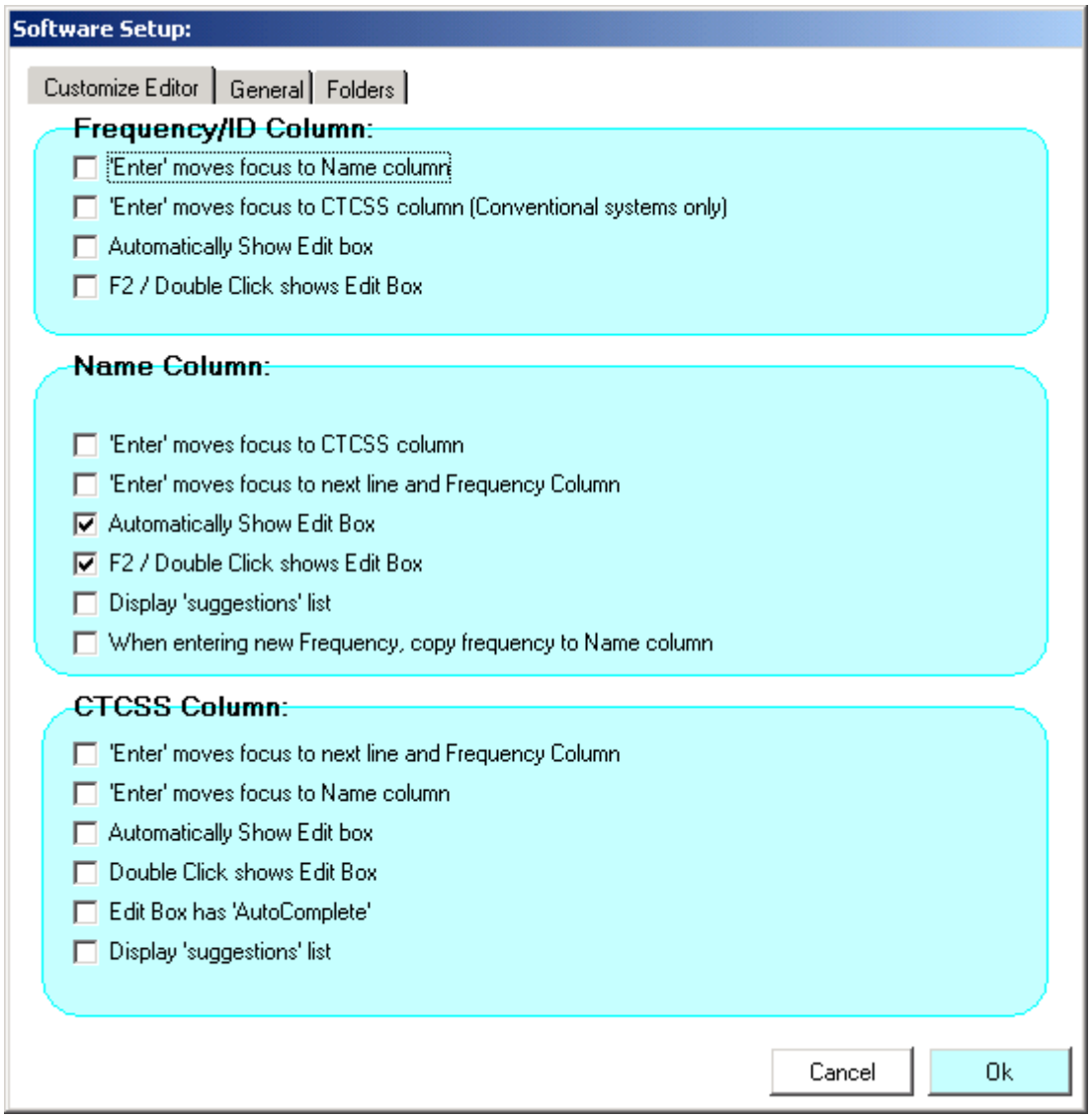
Import of UASD race systems is not supported.

2.18 Linking Maps to a System

Not available in current release

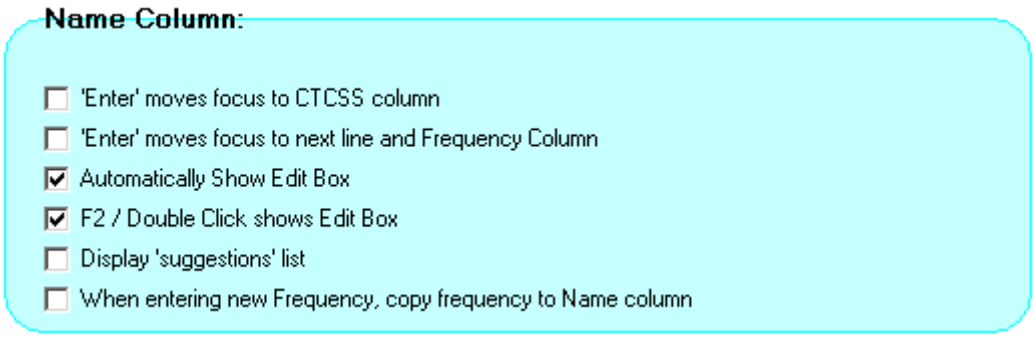
2.19 Customizing the editor:

You can customize the editor, select SETUP _ SOFTWARE OPTIONS



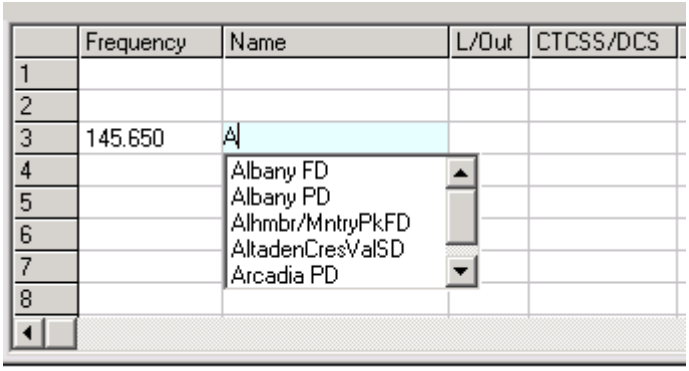
Frequency/ID Column:

- Enter moves focus to Name column: pressing the enter key will move the focus to the name column next to the frequency/id cell (not available for Race systems)
- Enter moves focus to CTCSS column: pressing the enter key will move the focus to the ctcss column in the same row (conventional/race systems only)
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- F2 / Double click shows edit box: pressing F2 or double clicking a cell will show the edit box

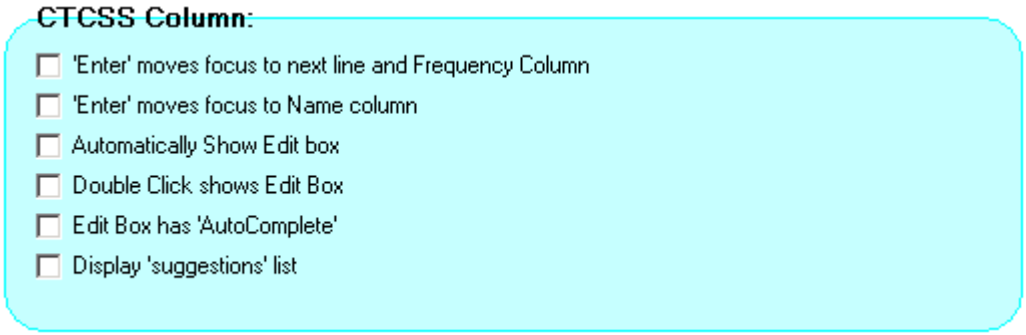


-

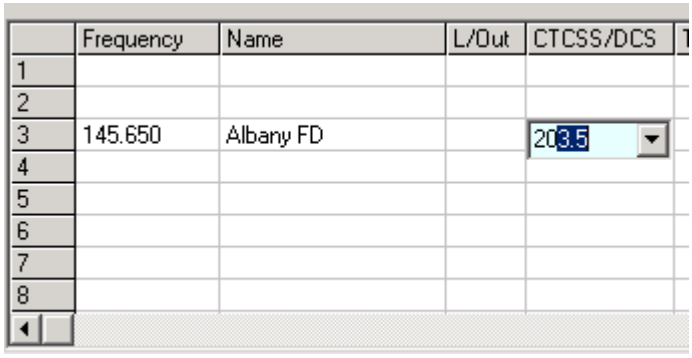
- Enter moves focus to CTCSS column: pressing the enter key will move the focus to the ctcss column in the same row (conventional/race systems only)
- Enter moves focus to next line and frequency column: when pressing the enter key the focus will be set to next line and frequency cell
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- F2 / Double click shows edit box: pressing F2 or double clicking a cell will show the edit box
- Display suggestions list: the software automatically builds a list of all tags that where entered in the past, this option will show a popup list showing all tags that match the characters that you type in. When you click on the tag in the suggestions list the tag is automatically copied in the grid. Below is an example of the suggestions list:



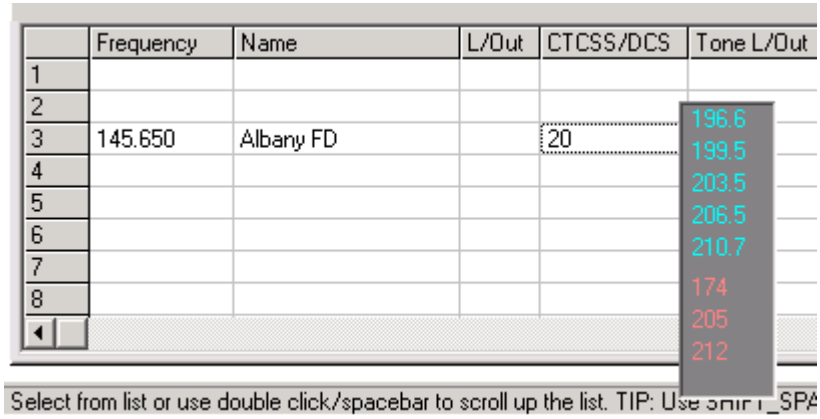
- Copy frequency to name column: If the name/tag cell is empty the software will copy the frequency to the name column and adds ‘MHz’



- Enter moves focus to next line and frequency column: when pressing the enter key the focus will be set to next line and frequency cell
- Enter moves focus to Name column: pressing the enter key will move the focus to the name column next to the frequency/id cell (not available for Race systems)
- Automatically show edit box: in the grid a edit box is shown (light blue background) Use enter to store the data or Esc to leave the edit box. To edit existing data use the space bar to enter edit mode.
- Double click shows edit box: pressing F2 or double clicking a cell will show the edit box
- Autocomplete: when you type in a subtone the software will show a suggestion, press enter to accept the suggestion. In the sample below 20 was entered and the software automatically completed this to 203.5. Press enter to accept the suggestion:



- Suggestions list: when you type in data, the software will show a popup window showing the CTCSSS and DCS tone that match the data you entered. Click the required subtone to copy it into the grid. Below the user entered 20 and the software displays a popup showing possible CTCSS and DCS subtones. Click the tone in the popup to set that subtone. Use Esc button to hide popup.



2.20 Setting up global lockout frequencies

During custom and service search you can lockout frequencies. These frequencies are stored in the global lockout frequency list. Select SETUP _ SEARCH L/O FREQUENCIES to edit these frequencies.

Read from Scanner: reads all Lockout frequencies that are stored in scanners memory.

Send to Scanner: if you added new frequencies to the list, use this option to update the active lockout frequencies list.

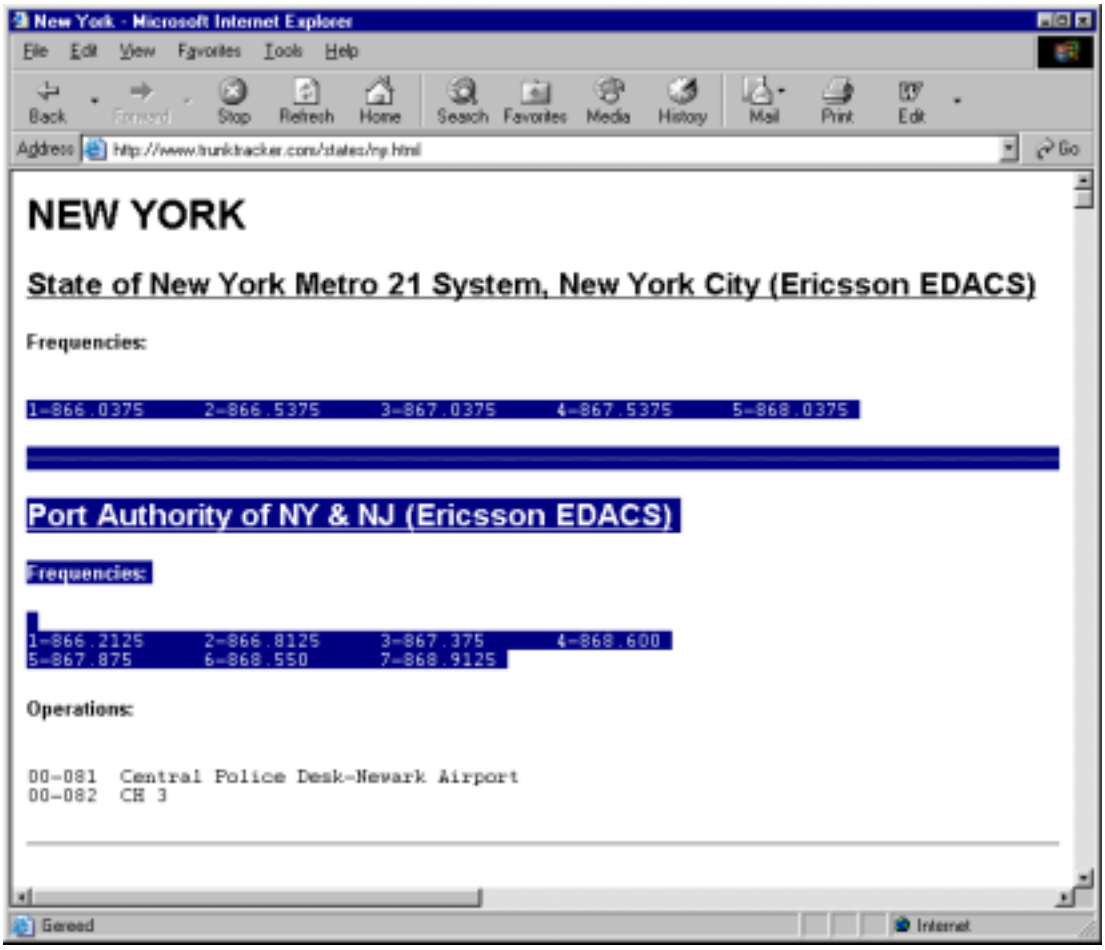
Adding frequencies: type in the frequencies and press the Add button. After you entered all frequencies you want to lockout, press the Send to Scanner button or the Add To Scanner button. Add to scanner will not clear the existing list in the scanner, it will only add the new frequencies.

Deleting a frequency from the list: first read data from the scanner, then tick the frequencies you want deleted from the list and click Send to Scanner

3.1 Using WebCatcher for importing frequencies from internet websites:

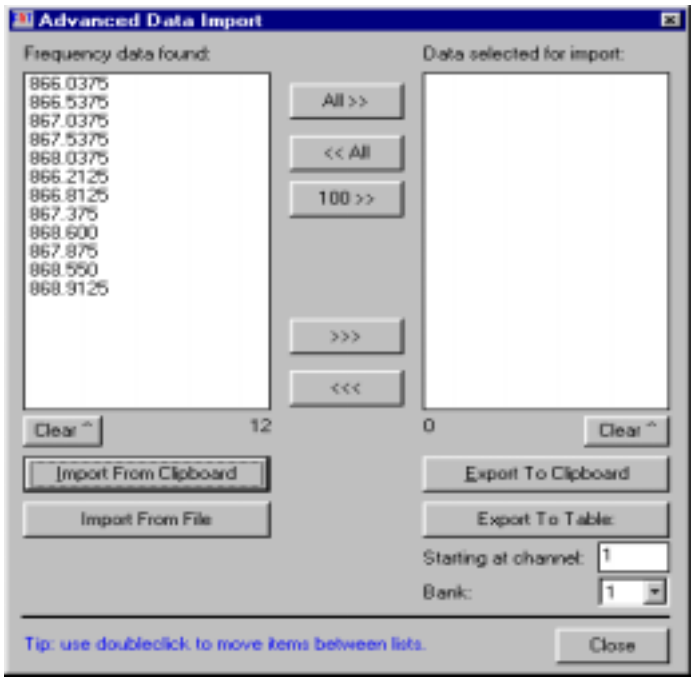
ARC396 can very easily import frequencies from any website.

- Start the ARC396 software
- Open you internet browser and open a website displaying frequencies you want to import (example: http://www.trunktracker.com)
- In your browser highlight the area you want to import:

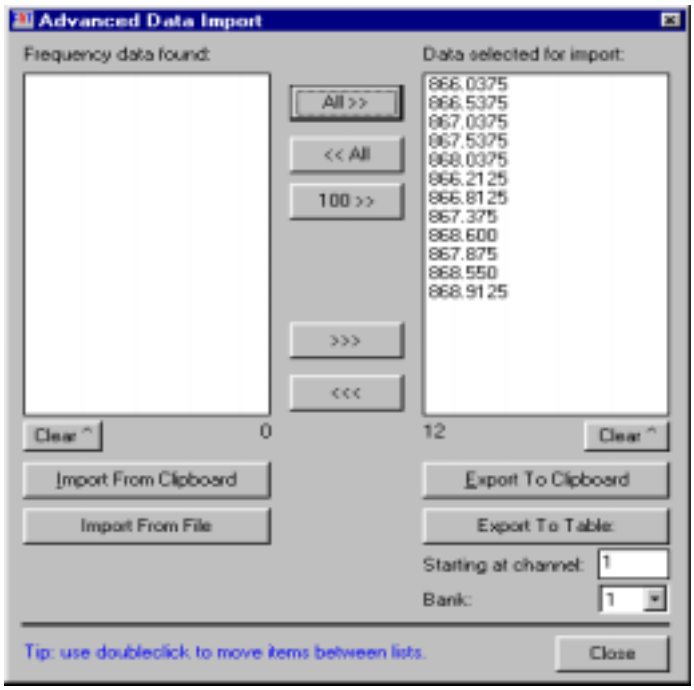


- Now you must press CTRL – C in your browser (or select EDIT _ COPY from the menu)
- Now go to ARC396 and select FILE _ ADVANCED DATA IMPORT
- A new window is shown (see below)
- Now press the “IMPORT FROM CLIPBOARD” button.
- The software will now show the frequencies it found in the highlighted part of the website.

- ARC automatically removes duplicate frequencies:



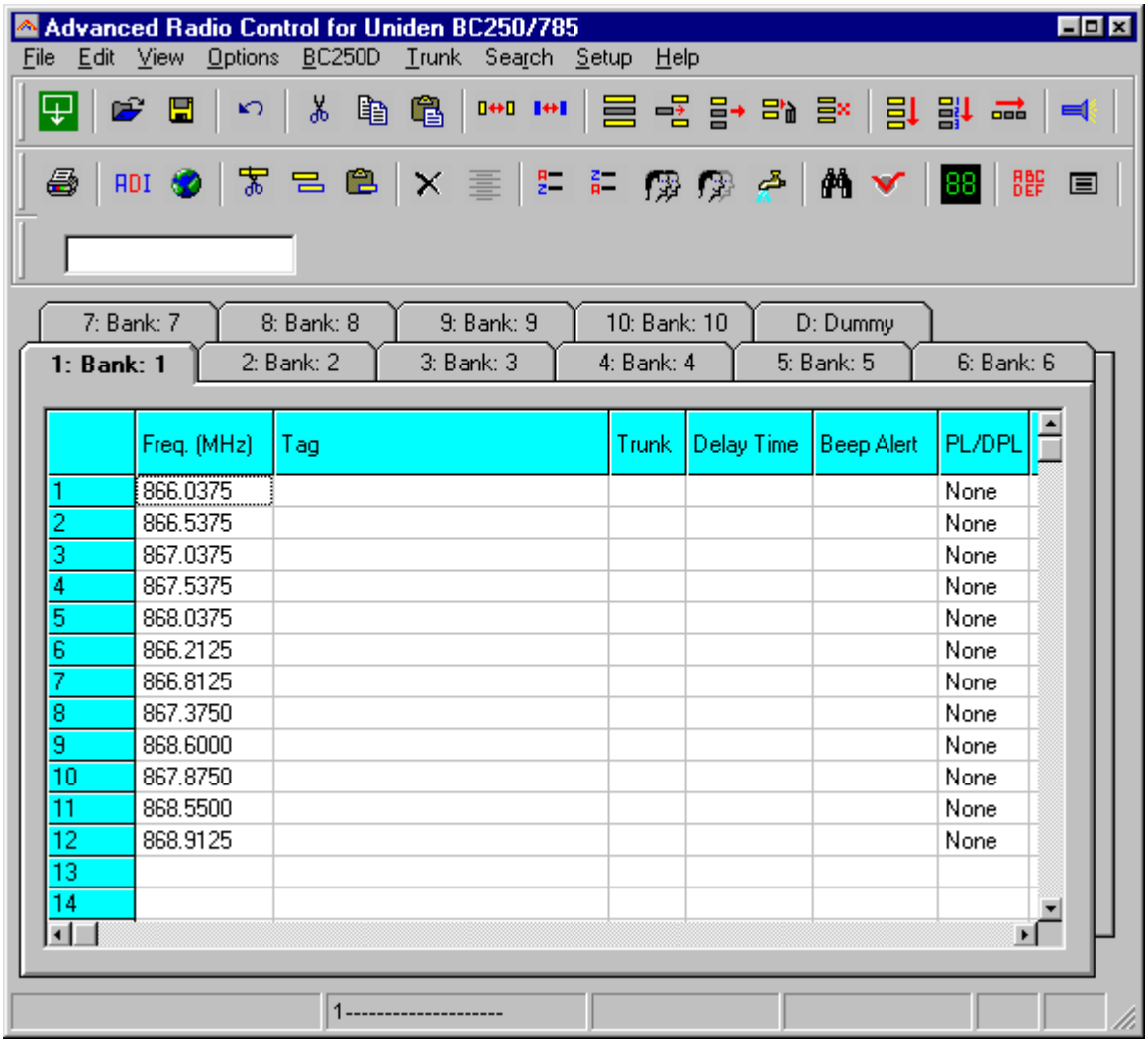
- For import into the memory table you must transfer the frequencies to the right list.
- Finally you select in what bank and at what channel you like to import the data.



- Press “EXPORT TO TABLE” button and frequencies are ready for upload!

- WebCatcher works with ANY website, the website shown above is only an example.

Here is the result of WebCatcher (screenshot was taken from ARC250):



3.2 TrunkWebCatcher

TrunkWebCatcher is a small but useful utility for importing trunk data from websites. You can import frequencies, trunk id's and descriptions from websites in seconds! You can also modify data before you export or save.

With ARC396 you can directly import trunk data from the new Radioreference Database. See section 8 in this manual!

TrunkWebCatcher will convert selected text from a website (using the clipboard) into a grid. Depending on the filters you define, the data in the grid can be refined. Once an acceptable result is achieved, data can be copied to the clipboard for import into other software, or data can be saved in the general CSV format. Excel can read CSV format files.

Your screen should be set to minimum of 800x600 but higher settings are recommended.

There are some limitations in the software:

- The text that is copied onto the clipboard and imported in TrunkWebCatcher should not be too large. About 45000 characters is the maximum (this includes spaces!)
- The software assumes that a trunk id or frequency is at the beginning of a line. Websites that first show text information and than the id number will not work properly.

To use the software follow these steps (see also detailed description with screenshots):

- Locate a website showing the trunk data you are interested in, a good resource is www.radioreference. com
- Start TrunkWebCatcher
- In your web browser, press and hold the left mouse button and highlight the area of the website you are interested in
- Release the mouse button, and select EDIT _ COPY in the browser menu, or press CTRL-C at the same time, this copies the selected text onto the clipboard
- Go to TrunkWebCatcher and press 'Import from Clipboard', the software will now copy the data into the grid
- Refine the data using the filter options
- Either save to disk or use 'Copy To Clipboard' to paste data into other applications, you simply highlight the area in the gird that you want to export. The save option saves the entire grid.

Save:

TrunkWebCatcher can save data in the CSV format. Excel can read CSV format files. Please note that in the beta version the entire grid is saved, not the selected area.

Columns setting:

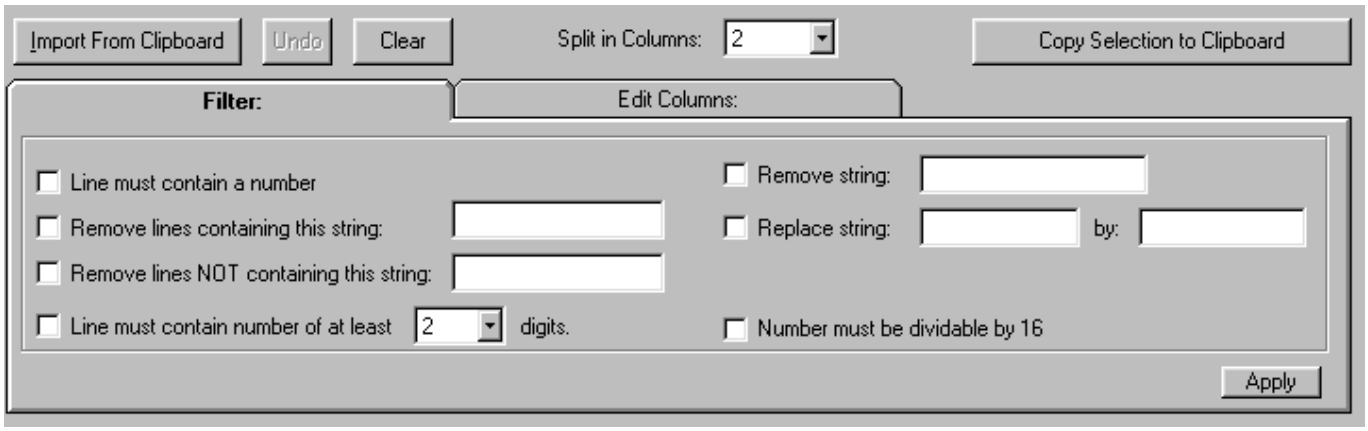
By default the software assumes the first part of the lines that are imported, are trunk id's. If the data you copy has more columns, you can increase this setting so data is split into more columns. The space is used as separator. Just play with this setting to get the best result. Columns can always be combined or removed.

General:

Importing large text from a website increases the possibility that data is lost by the filters, try to import text from a website that is grouped and has the same layout.

Filters:

Because trunk id's are normally just 'numbers', WebCatcher can not tell the difference between an id and other data. Therefore you must use filters. Experiment with these filters. As long as data is not copied back onto the clipboard, you can always go back to the original data by using the 'Import from Clipboard' option.



Follow these 3 basic steps:

1: **Import From Clipboard** > 2: **Filter data** > 3: **Copy Selection To Clipboard**

Once data is copied onto the clipboard, simply paste in ARC396.

Filters are applied to the grid when you click the apply button.

+ Line must contain a number:

This option checks if at least one number (0-9) is present in a line or row. If no numbers are present, that line is removed from the grid

+ Remove lines containing this string:

Removes lines that match the string that is entered. The string is case sensitive. For example if you want to remove lines that only show frequencies, enter the decimal character (.) here and click Apply.

+ Remove lines NOT containing this string:

Removes lines that do not match the entered string. The string is case sensitive. For example if you want to import Motorola type 1 id's enter the – character since these id's (e.g. 122-34) always contain this character.

+ Line must contain number of at least x digits:

example when this is set to 3, a line containing 12-04-04 (could be a date) will be removed. Look at the website and increase this number if possible to get better results for Motorola systems.

+ Number must be dividable by 16:

Most Motorola typ2 trunk id's are dividable by 16. Check this option to improve results for mot 2 id's.

+ Remove String:

this option scans the whole grid and simply removes the string you enter. For example, if every line contains WFM or FM for mode setting, enter WFM and this info will be removed from the grid, strings are case sensitive.

+ Replace String:

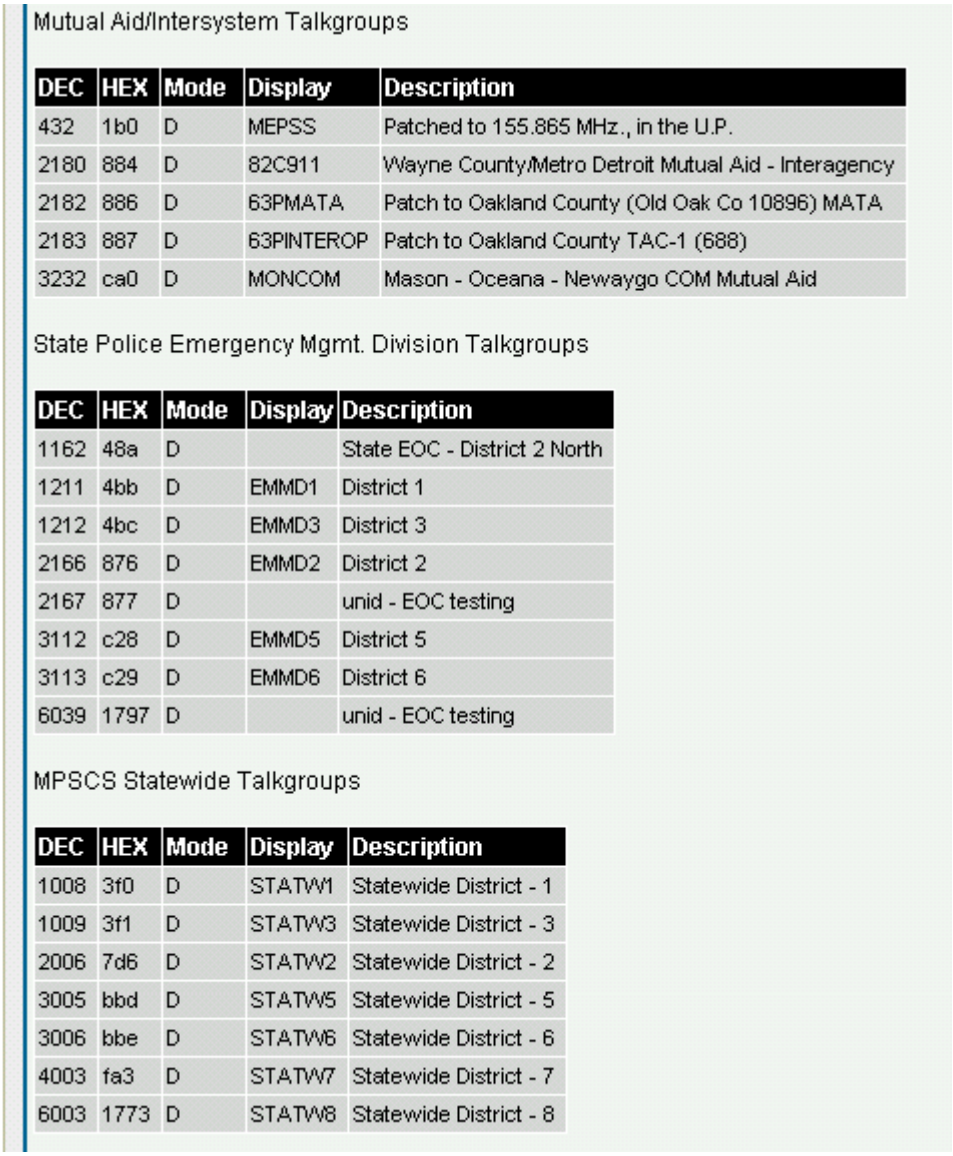
instead of remove, scan the whole grid and replaced the entered string, strings are case sensitive.

Filter-tips:

Motorola Type 1: type 1 ID's normally have the format nnn-nn. To make sure the lines contain a Type 1 id, use a filter

Detailed Description and sample how to use the TrunkWebCatcher:

Screen copy of a website showing trunk id's / tags we want to import:



Mutual Aid/Intersystem Talkgroups

DEC	HEX	Mode	Display	Description
432	1b0	D	MEPSS	Patched to 155.865 MHz., in the U.P.
2180	884	D	82C911	Wayne County/Metro Detroit Mutual Aid - Interagency
2182	886	D	63PMATA	Patch to Oakland County (Old Oak Co 10896) MATA
2183	887	D	63PINTEROP	Patch to Oakland County TAC-1 (688)
3232	ca0	D	MONCOM	Mason - Oceana - Newaygo COM Mutual Aid

State Police Emergency Mgmt. Division Talkgroups

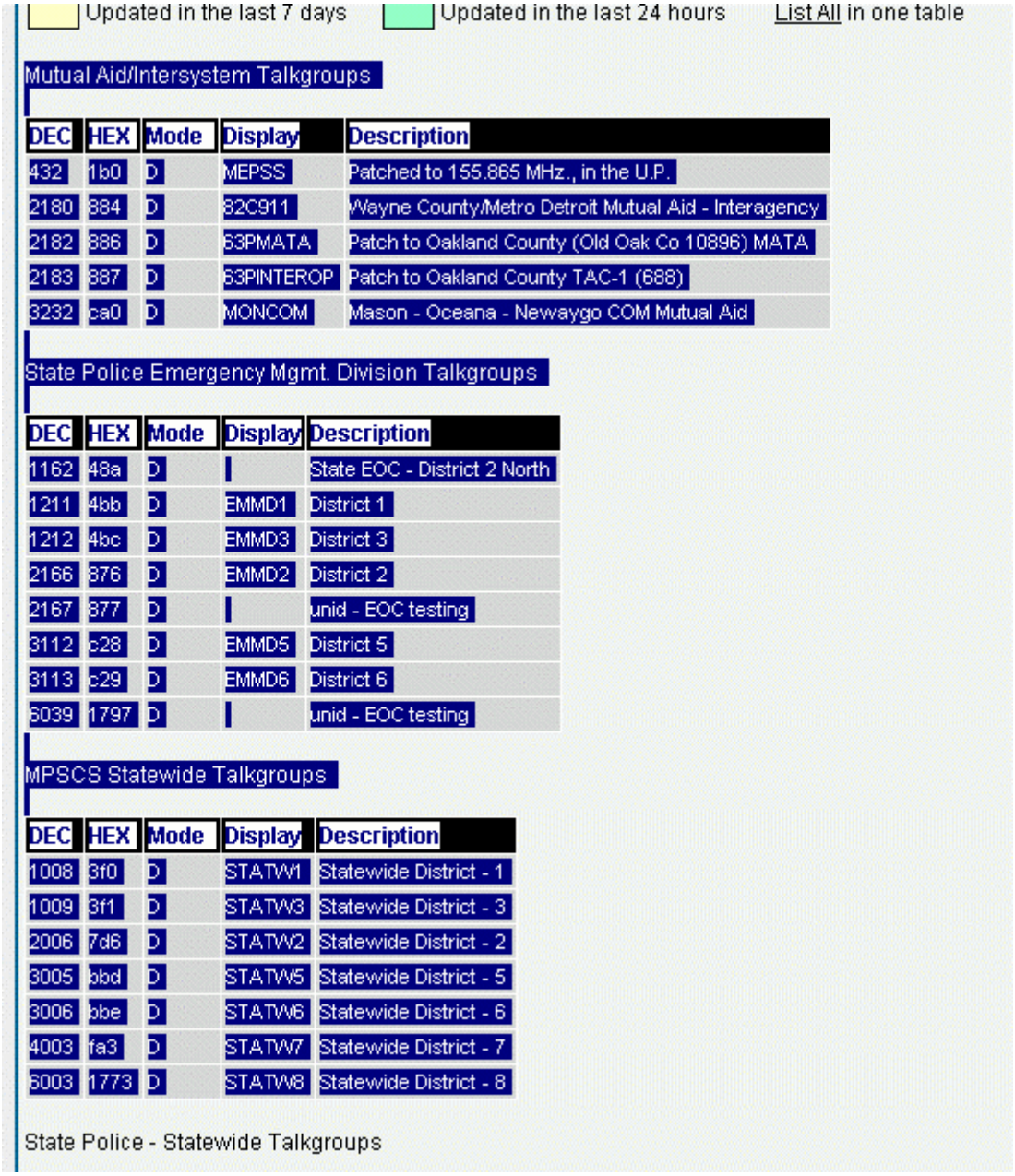
DEC	HEX	Mode	Display	Description
1162	48a	D		State EOC - District 2 North
1211	4bb	D	EMMD1	District 1
1212	4bc	D	EMMD3	District 3
2166	876	D	EMMD2	District 2
2167	877	D		unid - EOC testing
3112	c28	D	EMMD5	District 5
3113	c29	D	EMMD6	District 6
6039	1797	D		unid - EOC testing

MPSCS Statewide Talkgroups

DEC	HEX	Mode	Display	Description
1008	3f0	D	STATW1	Statewide District - 1
1009	3f1	D	STATW3	Statewide District - 3
2006	7d6	D	STATW2	Statewide District - 2
3005	bbd	D	STATW5	Statewide District - 5
3006	bbe	D	STATW6	Statewide District - 6
4003	fa3	D	STATW7	Statewide District - 7
6003	1773	D	STATW8	Statewide District - 8

(data source: Michigan State Police trunk system, at www.radiorefence.com)

We want to import the trunk id's and text from this website, first step is to highlight the section we want to import, you do this by holding down the left mouse button and move it over the section, your web browser will highlight the selection:



Updated in the last 7 days Updated in the last 24 hours List All in one table

Mutual Aid/Intersystem Talkgroups

DEC	HEX	Mode	Display	Description
432	1b0	D	MEPSS	Patched to 155.865 MHz., in the U.P.
2180	884	D	82C911	Wayne County/Metro Detroit Mutual Aid - Interagency
2182	886	D	63PMATA	Patch to Oakland County (Old Oak Co 10896) MATA
2183	887	D	63PINTEROP	Patch to Oakland County TAC-1 (688)
3232	ca0	D	MONCOM	Mason - Oceana - Newaygo COM Mutual Aid

State Police Emergency Mgmt. Division Talkgroups

DEC	HEX	Mode	Display	Description
1162	48a	D		State EOC - District 2 North
1211	4bb	D	EMMD1	District 1
1212	4bc	D	EMMD3	District 3
2166	876	D	EMMD2	District 2
2167	877	D		unid - EOC testing
3112	c28	D	EMMD5	District 5
3113	c29	D	EMMD6	District 6
6039	1797	D		unid - EOC testing

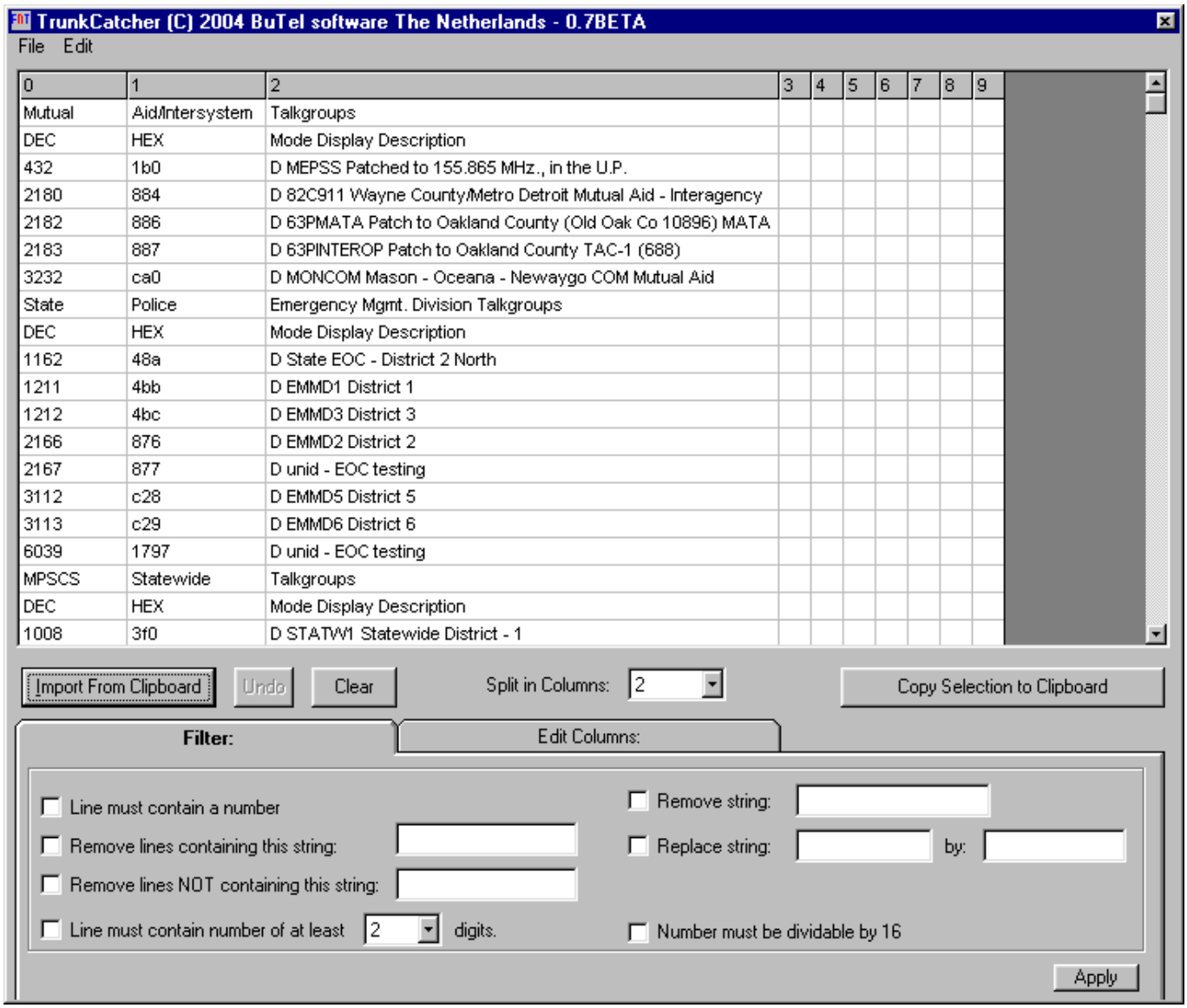
MPSCS Statewide Talkgroups

DEC	HEX	Mode	Display	Description
1008	3f0	D	STATW1	Statewide District - 1
1009	3f1	D	STATW3	Statewide District - 3
2006	7d6	D	STATW2	Statewide District - 2
3005	bbd	D	STATW5	Statewide District - 5
3006	bbe	D	STATW6	Statewide District - 6
4003	fa3	D	STATW7	Statewide District - 7
6003	1773	D	STATW8	Statewide District - 8

State Police - Statewide Talkgroups

Now in your web browser you select EDIT _ COPY or simple press CTRL C , this will copy the selected text to the clipboard.

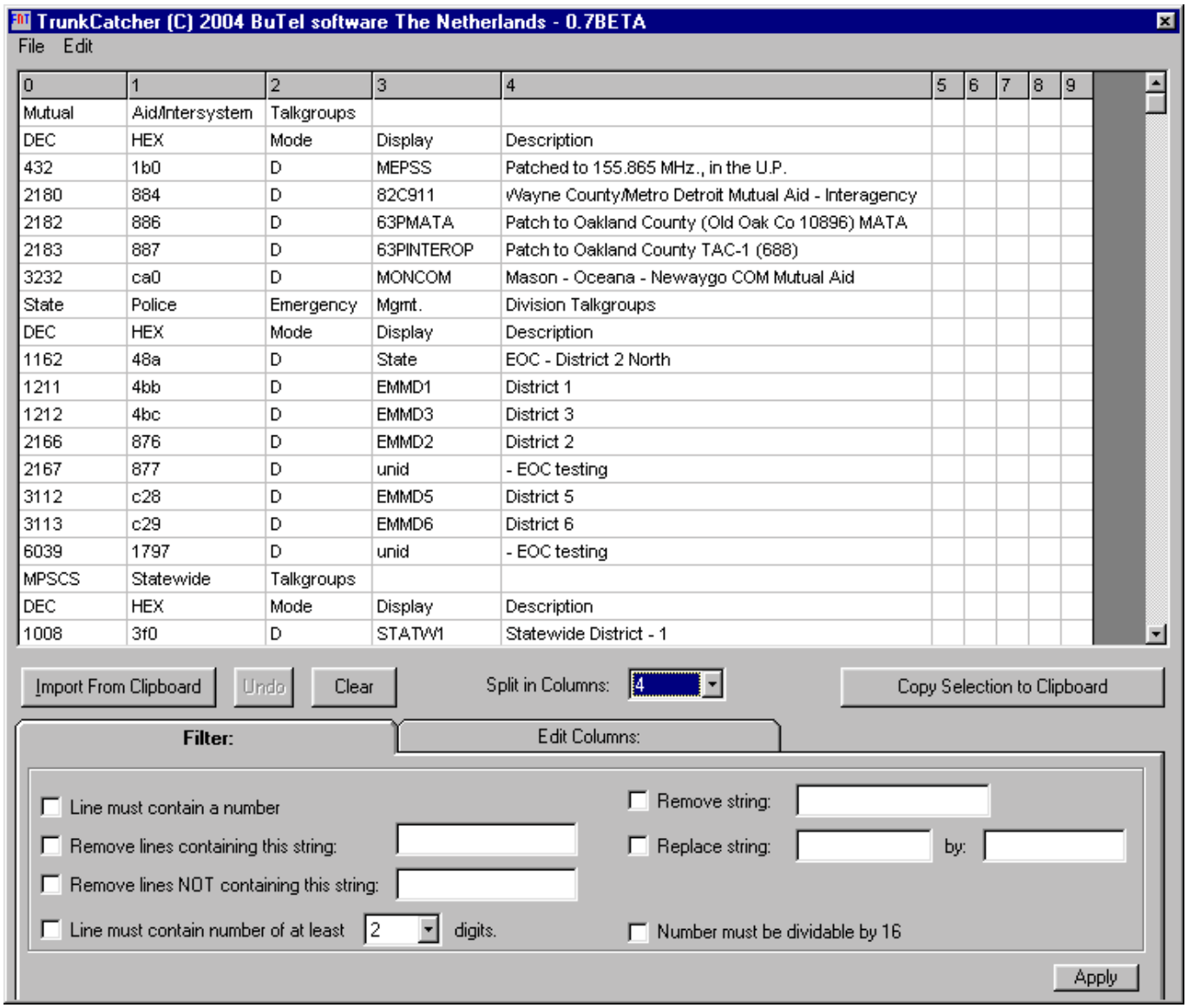
Go to the TrunkWebCatcher and select ‘Import from Clipboard’:



0	1	2	3	4	5	6	7	8	9
Mutual	Aid/Intersystem	Talkgroups							
DEC	HEX	Mode Display Description							
432	1b0	D MEPSS Patched to 155.865 MHz., in the U.P.							
2180	884	D 82C911 Wayne County/Metro Detroit Mutual Aid - Interagency							
2182	886	D 63PMATA Patch to Oakland County (Old Oak Co 10896) MATA							
2183	887	D 63PINTEROP Patch to Oakland County TAC-1 (688)							
3232	ca0	D MONCOM Mason - Oceana - Newaygo COM Mutual Aid							
State	Police	Emergency Mgmt. Division Talkgroups							
DEC	HEX	Mode Display Description							
1162	48a	D State EOC - District 2 North							
1211	4bb	D EMMD1 District 1							
1212	4bc	D EMMD3 District 3							
2166	876	D EMMD2 District 2							
2167	877	D unid - EOC testing							
3112	c28	D EMMD5 District 5							
3113	c29	D EMMD6 District 6							
6039	1797	D unid - EOC testing							
MPSCS	Statewide	Talkgroups							
DEC	HEX	Mode Display Description							
1008	3f0	D STATWI Statewide District - 1							

The text that you just highlighted is copied into the grid. Since the data at the website was divided into several columns, increase the ‘Split in Columns’ option to 4.

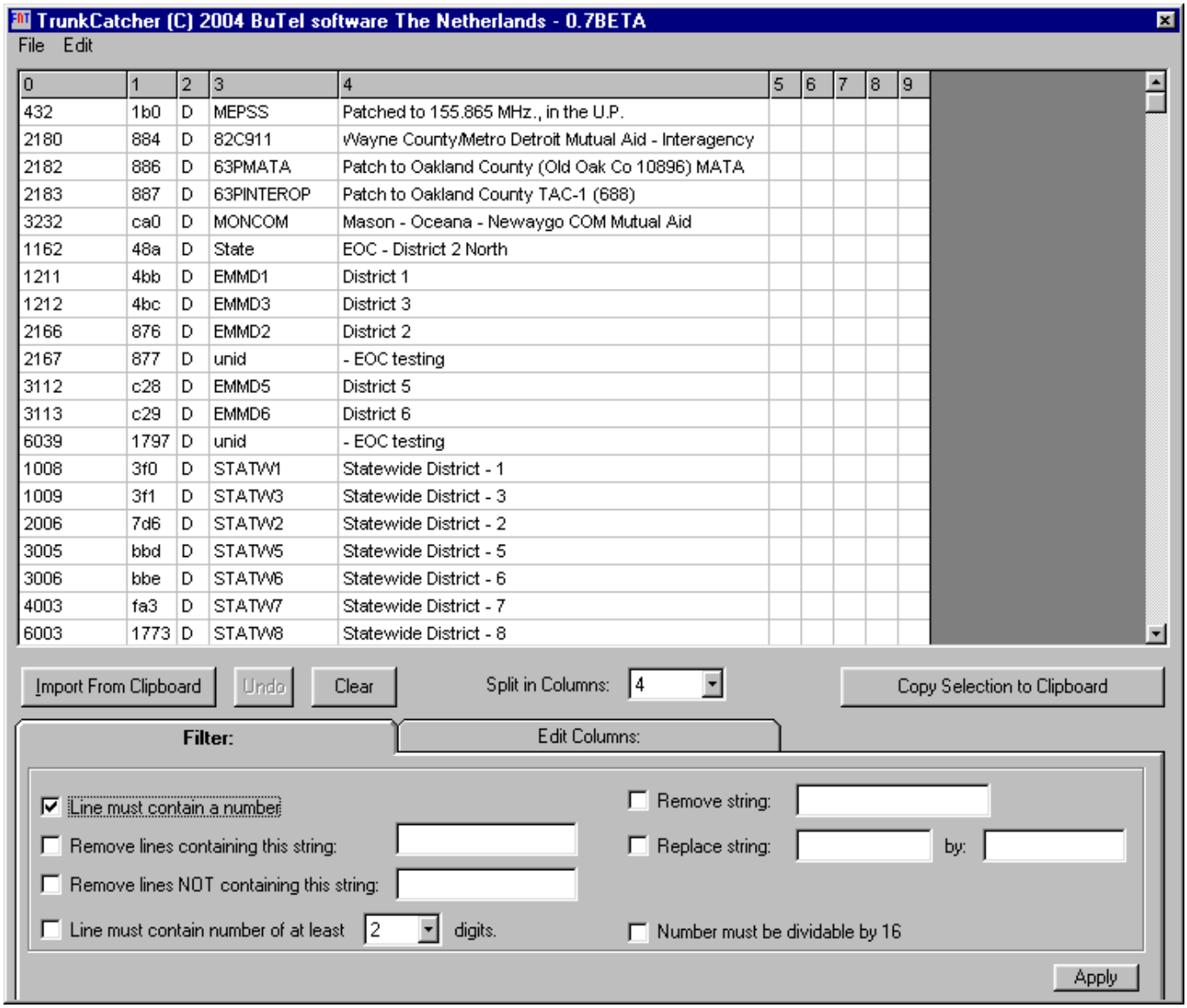
You will now see that the software divided the selected text back into the original columns:



0	1	2	3	4	5	6	7	8	9
Mutual	Aid/Intersystem	Talkgroups							
DEC	HEX	Mode	Display	Description					
432	1b0	D	MEPSS	Patched to 155.865 MHz., in the U.P.					
2180	884	D	82C911	Wayne County/Metro Detroit Mutual Aid - Interagency					
2182	886	D	63PMATA	Patch to Oakland County (Old Oak Co 10896) MATA					
2183	887	D	63PINTEROP	Patch to Oakland County TAC-1 (688)					
3232	ca0	D	MONCOM	Mason - Oceana - Newaygo COM Mutual Aid					
State	Police	Emergency	Mgmt.	Division Talkgroups					
DEC	HEX	Mode	Display	Description					
1162	48a	D	State	EOC - District 2 North					
1211	4bb	D	EMMD1	District 1					
1212	4bc	D	EMMD3	District 3					
2166	876	D	EMMD2	District 2					
2167	877	D	unid	- EOC testing					
3112	c28	D	EMMD5	District 5					
3113	c29	D	EMMD6	District 6					
6039	1797	D	unid	- EOC testing					
MPSCS	Statewide	Talkgroups							
DEC	HEX	Mode	Display	Description					
1008	3f0	D	STATW1	Statewide District - 1					

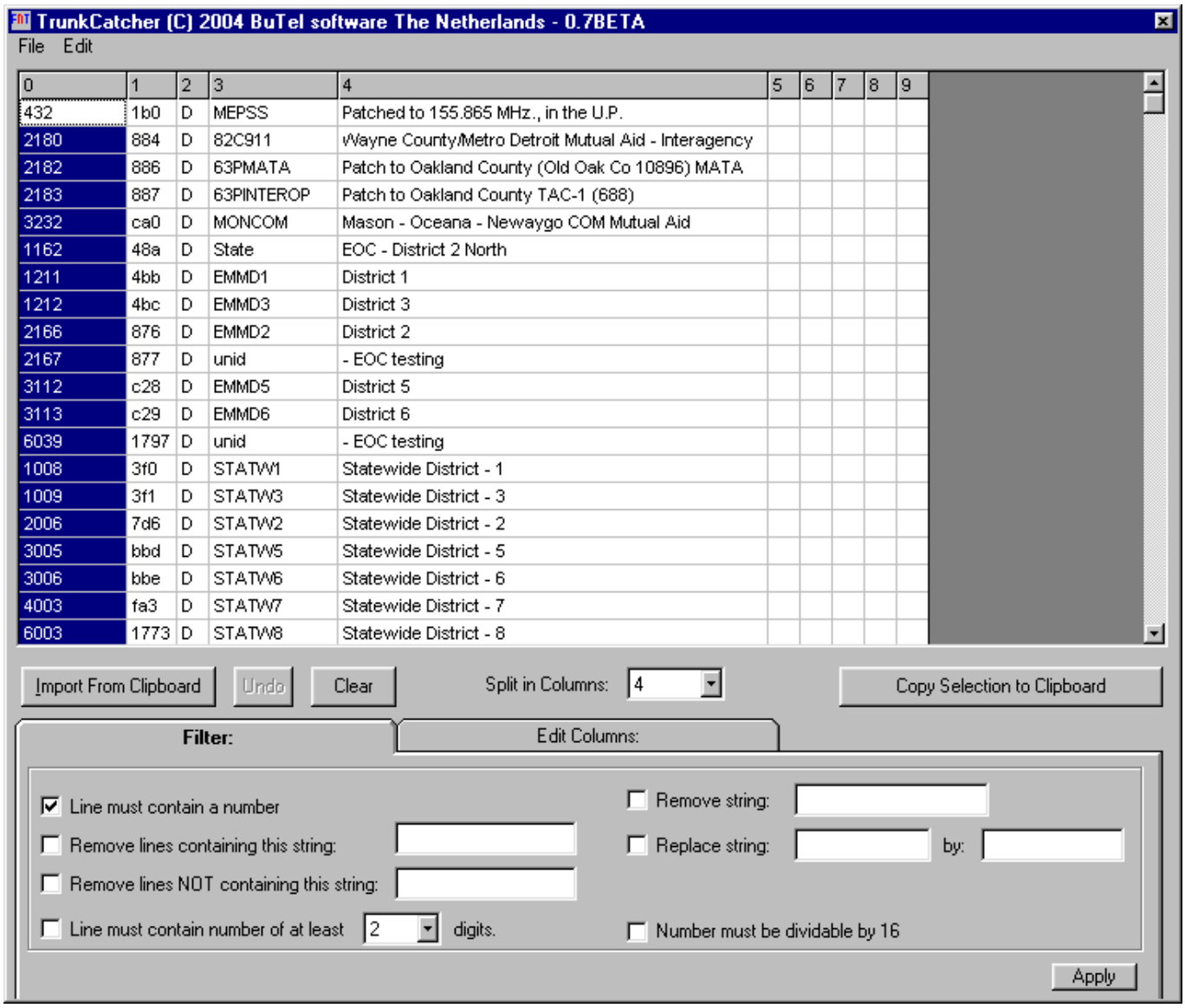
In this particular case the website already has a column called ‘Display’. Because your scanner can only show a limited number of characters for the tag, the data from this column can be used to import into ARC396. The grid also shows a ‘long’ description but scanners cannot store that. You can save the file with the long description to csv format for later reference.

You can use filters to remove unwanted data, although the grid can be easily used to copy data into your scanner software. In this example lines without numbers were removed:



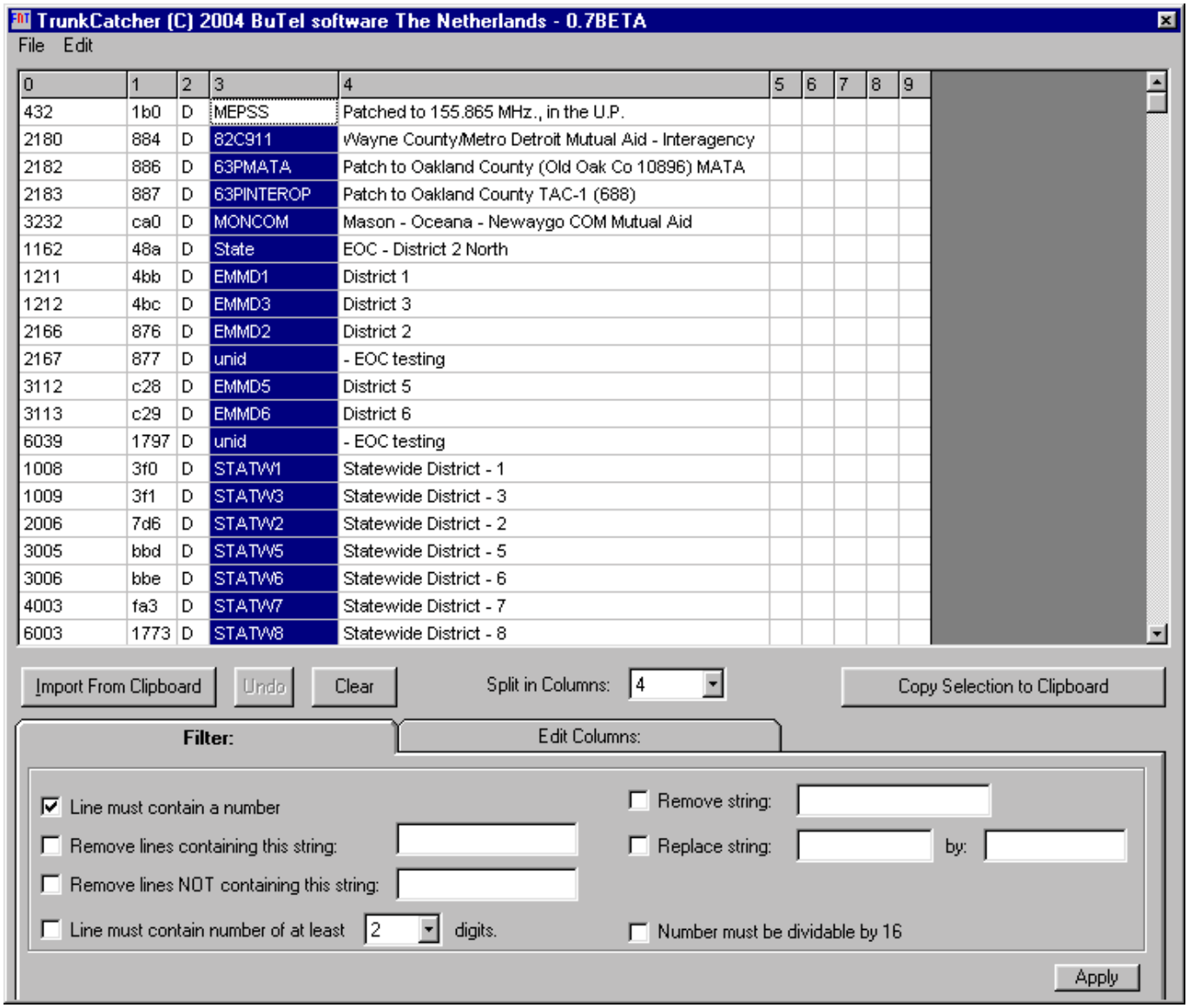
0	1	2	3	4	5	6	7	8	9
432	1b0	D	MEPSS	Patched to 155.865 MHz., in the U.P.					
2180	884	D	82C911	Wayne County/Metro Detroit Mutual Aid - Interagency					
2182	886	D	63PMATA	Patch to Oakland County (Old Oak Co 10896) MATA					
2183	887	D	63PINTEROP	Patch to Oakland County TAC-1 (688)					
3232	ca0	D	MONCOM	Mason - Oceana - Newaygo COM Mutual Aid					
1162	48a	D	State	EOC - District 2 North					
1211	4bb	D	EMMD1	District 1					
1212	4bc	D	EMMD3	District 3					
2166	876	D	EMMD2	District 2					
2167	877	D	unid	- EOC testing					
3112	c28	D	EMMD5	District 5					
3113	c29	D	EMMD6	District 6					
6039	1797	D	unid	- EOC testing					
1008	3f0	D	STATW1	Statewide District - 1					
1009	3f1	D	STATW3	Statewide District - 3					
2006	7d6	D	STATW2	Statewide District - 2					
3005	bbd	D	STATW5	Statewide District - 5					
3006	bbe	D	STATW6	Statewide District - 6					
4003	fa3	D	STATW7	Statewide District - 7					
6003	1773	D	STATW8	Statewide District - 8					

Final step is to highlight areas in the grid that we want pasted into other software, in this example we highlighted the column with trunk id's and when you click 'Copy Selection to Clipboard' you can paste that into ARC396.



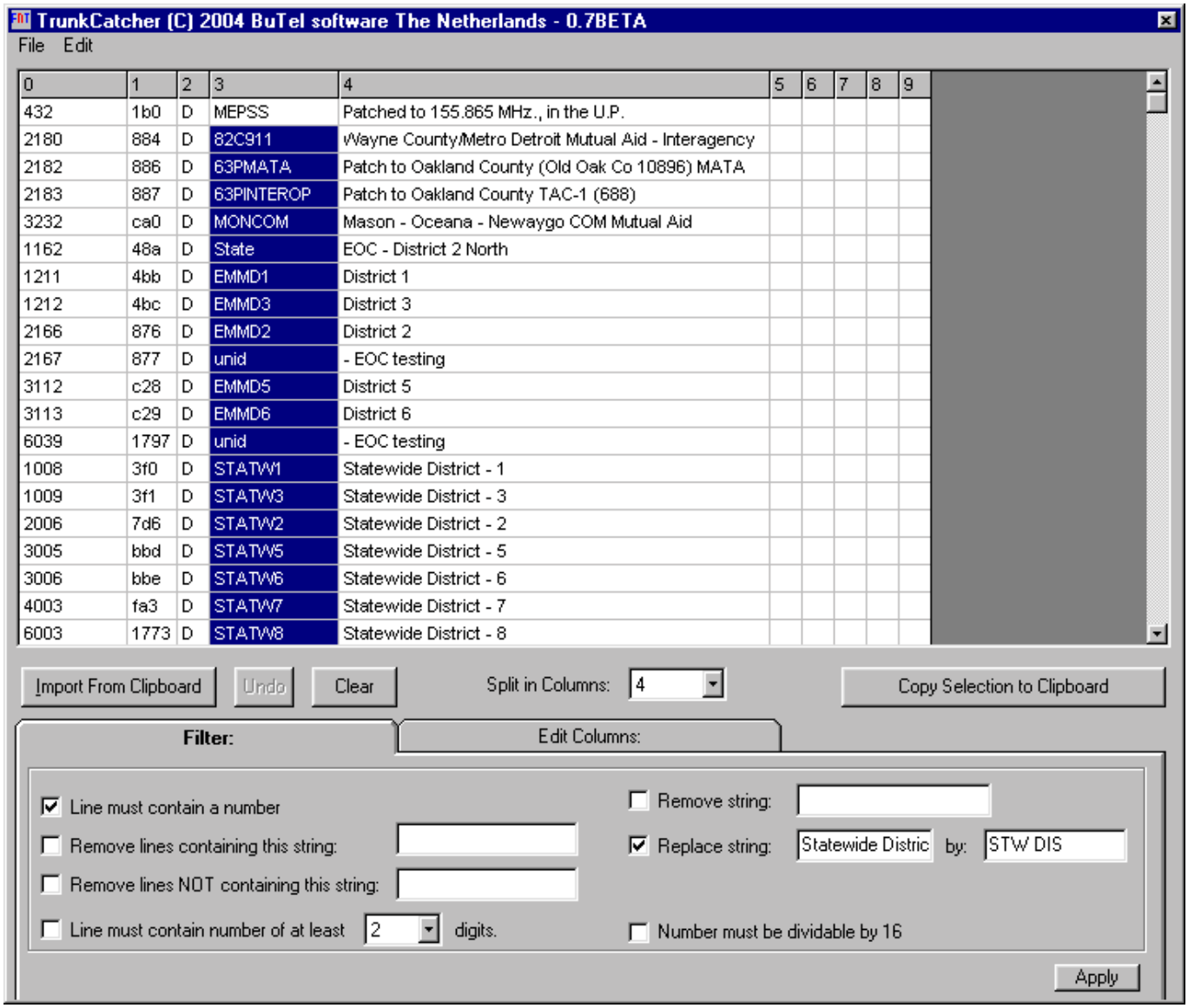
0	1	2	3	4	5	6	7	8	9
432	1b0	D	MEPSS	Patched to 155.865 MHz., in the U.P.					
2180	884	D	82C911	Wayne County/Metro Detroit Mutual Aid - Interagency					
2182	886	D	63PMATA	Patch to Oakland County (Old Oak Co 10896) MATA					
2183	887	D	63PINTEROP	Patch to Oakland County TAC-1 (688)					
3232	ca0	D	MONCOM	Mason - Oceana - Newaygo COM Mutual Aid					
1162	48a	D	State	EOC - District 2 North					
1211	4bb	D	EMMD1	District 1					
1212	4bc	D	EMMD3	District 3					
2166	876	D	EMMD2	District 2					
2167	877	D	unid	- EOC testing					
3112	c28	D	EMMD5	District 5					
3113	c29	D	EMMD6	District 6					
6039	1797	D	unid	- EOC testing					
1008	3f0	D	STATW1	Statewide District - 1					
1009	3f1	D	STATW3	Statewide District - 3					
2006	7d6	D	STATW2	Statewide District - 2					
3005	bbd	D	STATW5	Statewide District - 5					
3006	bbe	D	STATW6	Statewide District - 6					
4003	fa3	D	STATW7	Statewide District - 7					
6003	1773	D	STATW8	Statewide District - 8					

You can do the same for the display column:

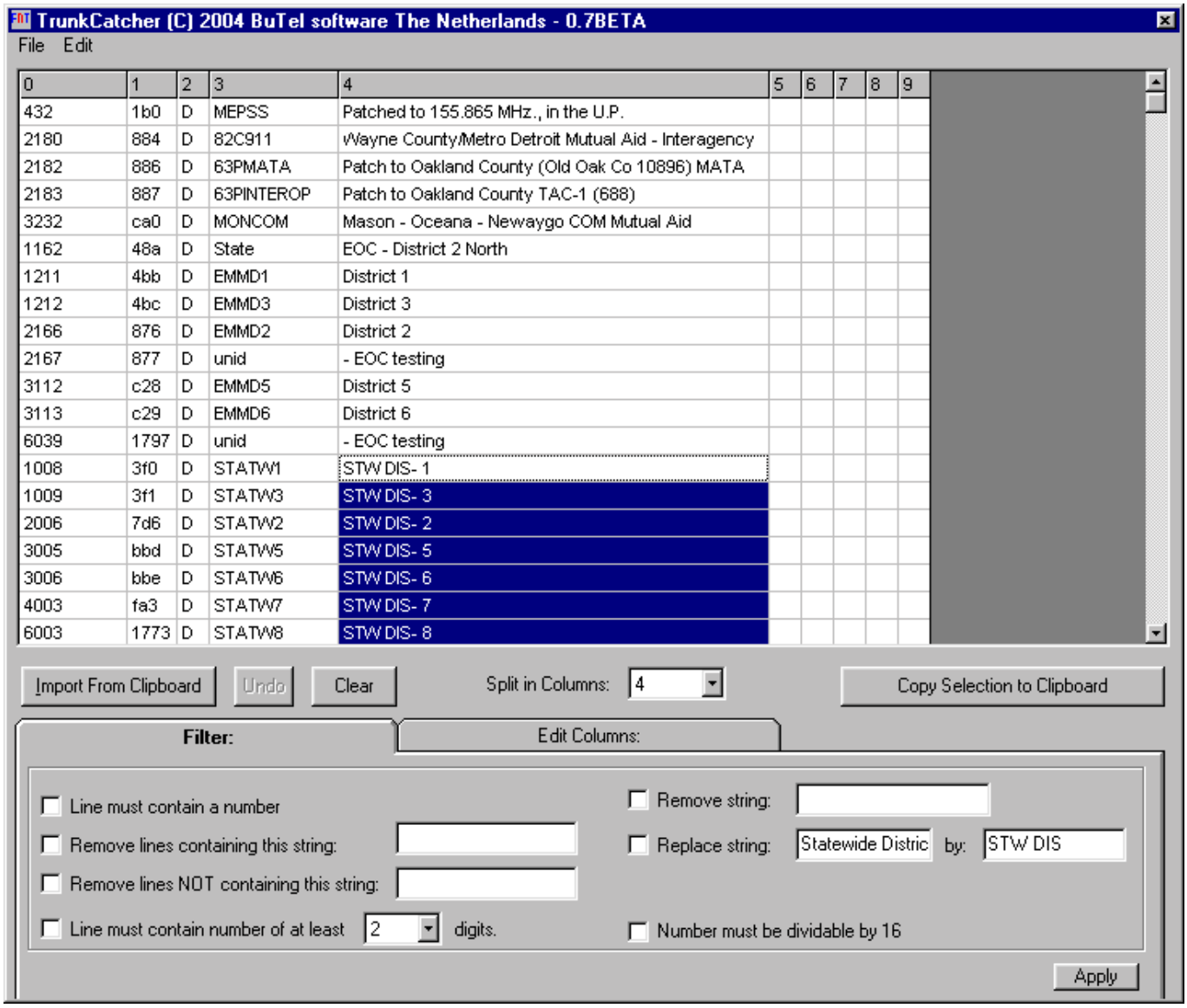


Finally there may be websites that do not show descriptions that will fit your scanner; here is an example of using TrunkWebCatcher option to make shorter descriptions:

In the Description column you see for example ‘Statewide District’, you can replace this by ‘STW DIS’ or what you like:



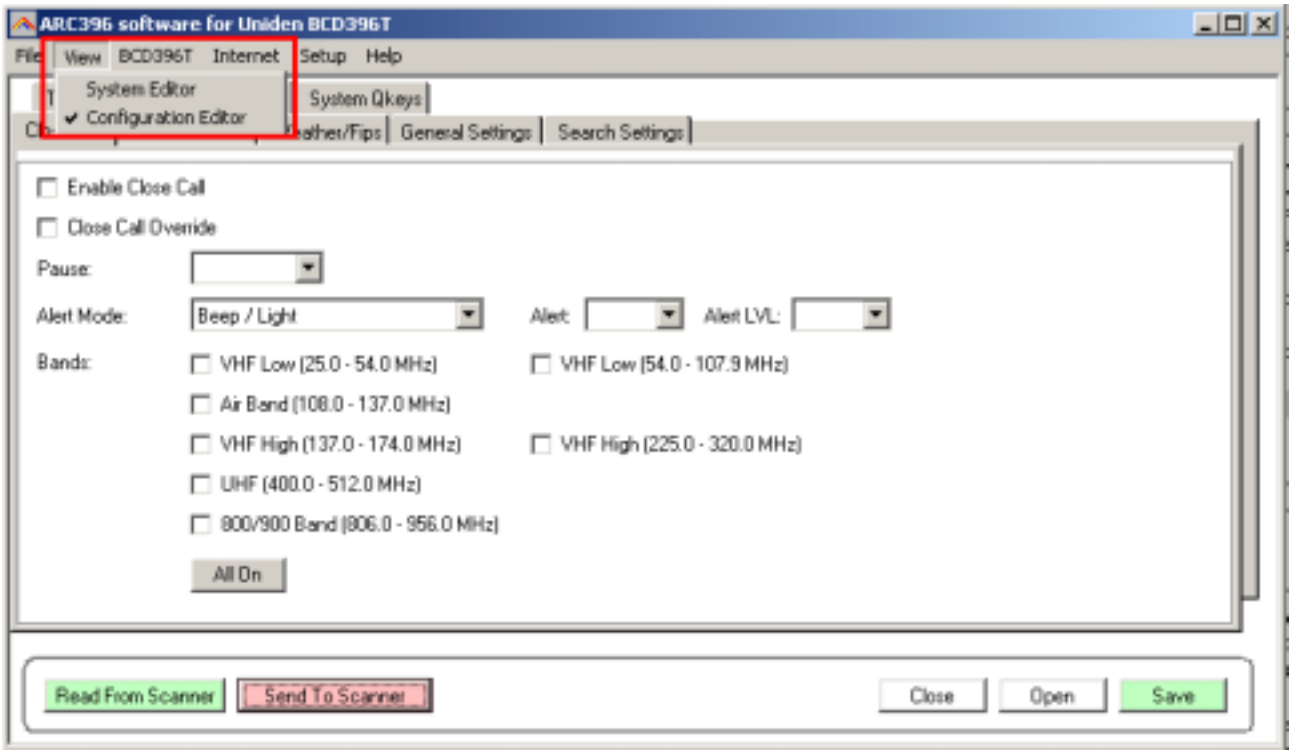
And clicking Apply will give you:



4 Configuration parameters:

From the main menu select ‘VIEW _ Configuration Editor’. If this option is not shown, click on a system in the system browser.

You can edit BCD396T configuration parameters like general settings, custom search ranges and SAME settings for WX alert. See scanner user manual for more information about these parameters.

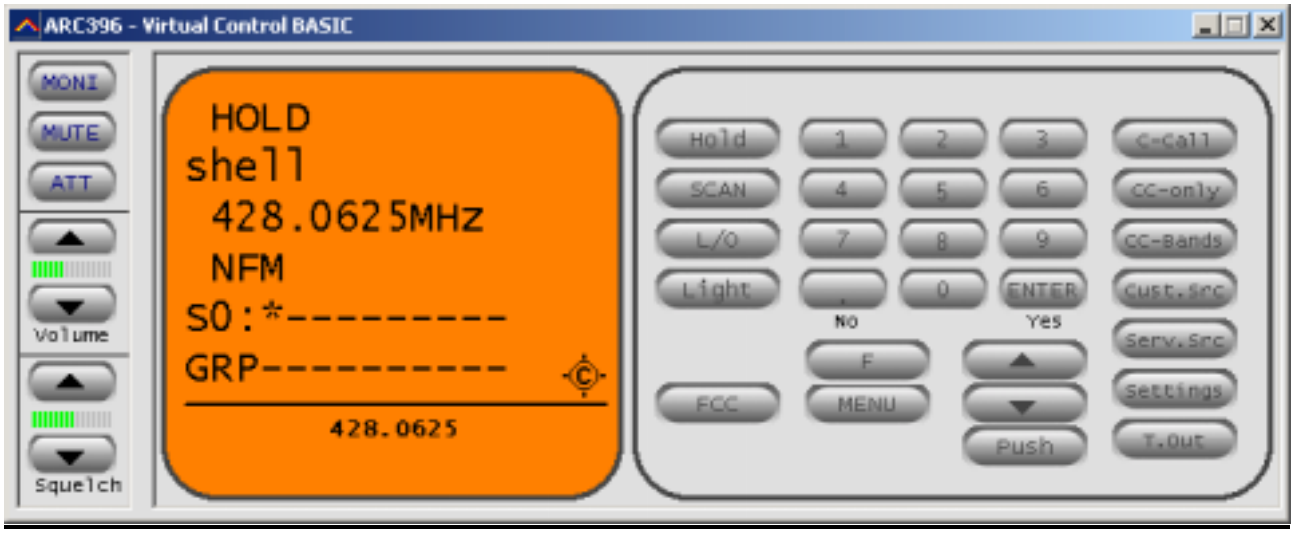


Use the Open and Save options to store configuration settings on disk.

5 Virtual Control BASIC version

ARC396 includes a virtual control option.

Virtual control shows real-time scanner display data and you can operate the scanner from your PC keyboard using smart *shortcuts*.
You can also control the volume and squelch settings.



Special options:

Use right mouse click on F button to toggle the FUNCTION option on/off.

MONI= Monitor, opens squelch (conventional mode only!)
MUTE= mutes audio
ATT= toggle attenuator on/off

C-Call/CC-Only/CC-bands/Cust.Src/Serv.Src/Settings/T.Out buttons are *shortcuts* to these items in the menu.

Use *right mouse button click* on Cust.Src and T.Out buttons to setup these options.

FCC: lookup active frequency in FCC database.

When close call is enabled, Virtual Control will automatically display the frequency found! You do not need to press a key to display close call hits.

5.1 Virtual Control: Keyboard Shortcuts

When using your scanner under virtual control, your PC keyboard has shortcuts to options in the BCD396T :

PC Keyboard button:	Function:
M	Open/Close Menu
Esc (escape)	Open/Close Menu
Arrow buttons up/down left/right	Browse Menu
H	Hold/Resume scanning/searching
S, spacebar	Scan/Hold scanning/searching
Enter	E button
1-9,0	Select SYSTEM QuickKey On/Off
Shift + 1-9,0	Select GROUP QuickKey On/Off
L	Set Lockout
U	Up
D	Down
Delete	Clear entry (frequency or trunk id)
F	Toggle FUNC on/off

By using the ESC , Enter and arrow buttons at your PC keyboard you can easily browse the BCD396T menu and set data

5.2 Resize Display:

The VC window is fully resizable.

5.3.1 VC minimized:

If you minimize virtual control, your windows toolbar will display the first 2 lines of the scanner display (depending on space available):

Also 2 different ‘mini’ Windows are shown. Double click the mini window to toggle between them.

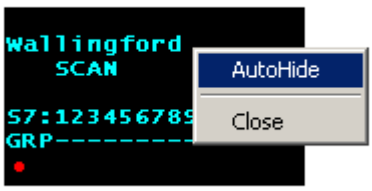
Mini Window 1:

Displays all display information. To control the scanner 3 buttons (Hold / Resume Scan and Lockout) are available. These buttons are automatically hidden. If you move the mouse over the mini window the buttons are automatically shown.
To close hit right mouse button and select ‘Close’

Mini Window2:

A small window showing only the 2 top rows of the display. Double click the ‘X’ to close this mini window.

Autohide: right click in the mini window:



Select ‘Autohide’ if you want to hide the mini window when squelch is closed.

Mini window position:

By holding down the right mouse button you can drag the window to any position.

The mini windows have an autohide option. Use right mouse button menu to enabled autohide. Autohide will hide the mini windows when squelch is closed.

5.3.2 Virtual Control BackColor

In VC click the right mouse button and a popup menu is shown. Select “Set Display Backcolor’ to change the color.

5.3.3 Virtual Control ‘on top’

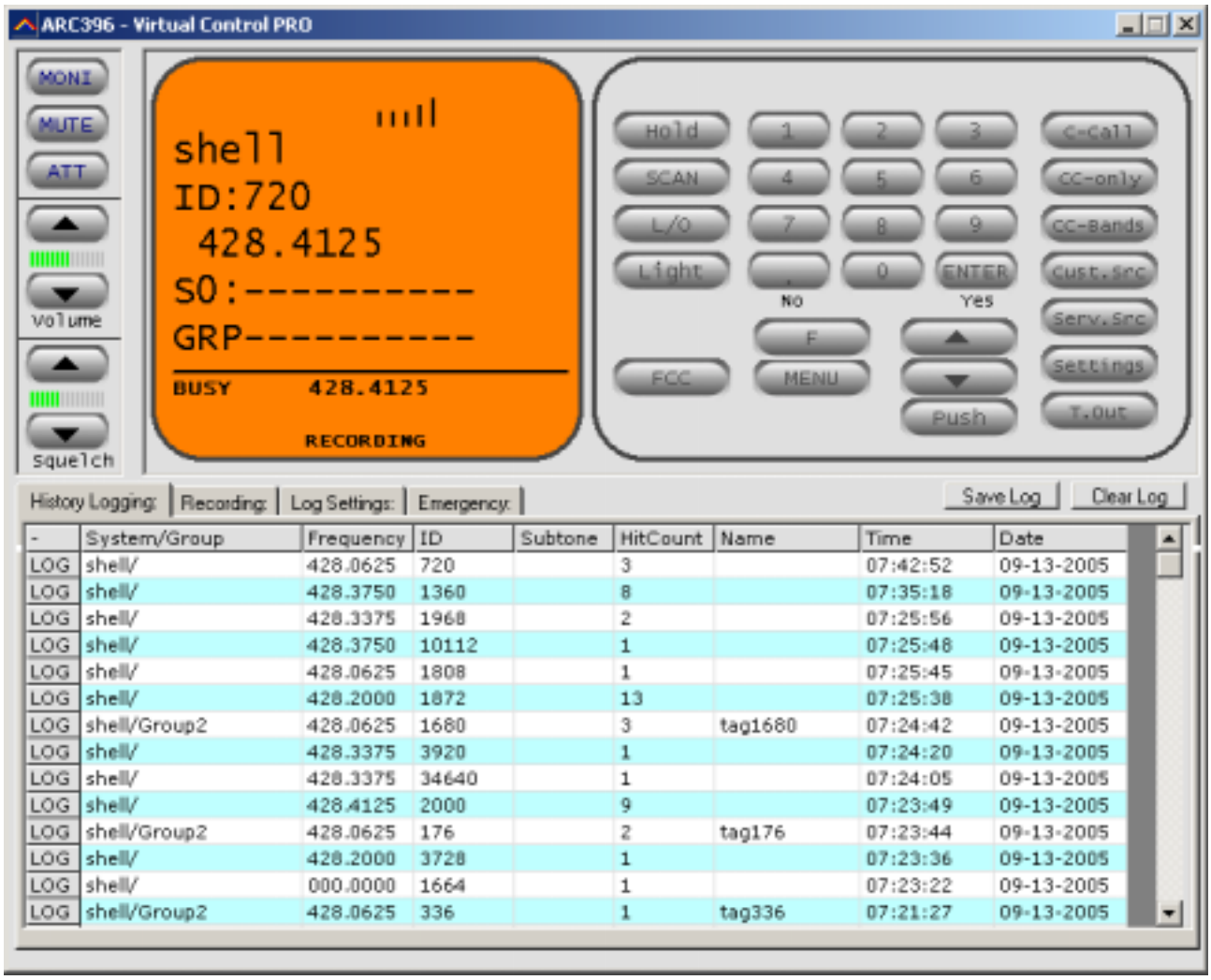
In VC click the right mouse button and a popup menu is shown. Select “Window On Top” and VC screen will be shown on top of other windows

5.3.4 Virtual Control Font Bold

In VC click the right mouse button and a popup menu is shown. Select “Font Bold” to change font to bold. Uncheck option to return to normal font.

5.4 Extra Options in ARC396 PRO

5.4.1 History Logging:

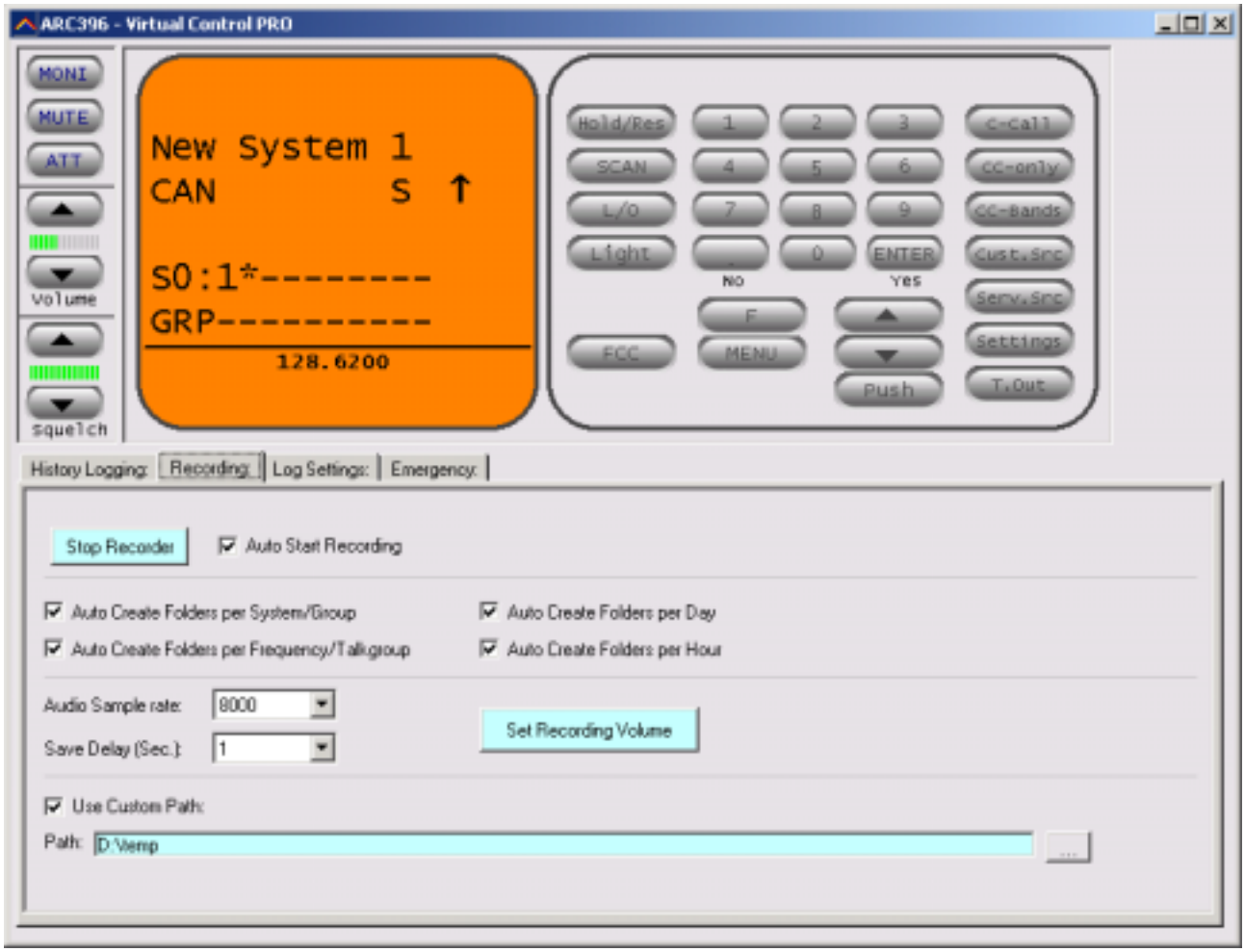


-	System/Group	Frequency	ID	Subtone	HitCount	Name	Time	Date
LOG	shell/	428.0625	720		3		07:42:52	09-13-2005
LOG	shell/	428.3750	1360		8		07:35:18	09-13-2005
LOG	shell/	428.3375	1968		2		07:25:56	09-13-2005
LOG	shell/	428.3750	10112		1		07:25:48	09-13-2005
LOG	shell/	428.0625	1808		1		07:25:45	09-13-2005
LOG	shell/	428.2000	1872		13		07:25:38	09-13-2005
LOG	shell/Group2	428.0625	1680		3	tag1680	07:24:42	09-13-2005
LOG	shell/	428.3375	3920		1		07:24:20	09-13-2005
LOG	shell/	428.3375	34640		1		07:24:05	09-13-2005
LOG	shell/	428.4125	2000		9		07:23:49	09-13-2005
LOG	shell/Group2	428.0625	176		2	tag176	07:23:44	09-13-2005
LOG	shell/	428.2000	3728		1		07:23:36	09-13-2005
LOG	shell/	000.0000	1664		1		07:23:22	09-13-2005
LOG	shell/Group2	428.0625	336		1	tag336	07:21:27	09-13-2005

In ARC396 PRO a history logger will log all activity. This includes detected subtones and close call hits. Use ‘Save Log’ to save the history to disk.
The history log will store the last 200 events. Use the ‘log to file’ option in Log settings TAB to log every event.

Lines marked with SUB are ‘detected’ subtones.

5.4.2 Recording:



When you connect the BCD396T speaker output to the line input of your pc's soundcard you can automatically record audio to disk in WAV format (see section 8). By default audio files are saved under 'My documents' _ 'My scanner recordings' folder. You can change this path.

ARC396 uses 'zero-loss' recording, unlike other software, no audio information is lost at the beginning of the recording. To playback audio files, use the Windows Media player. You can easily drag and drop files in the Media player playlist section.

Click the Recording Tab to setup/start the recorder:

Start Recorder/Stop Recorder: use this button to start/stop recording
Autostart: when this option is selected, the recorder will start automatically when Virtual control is started.

Autocreate folder:
For your convenience the software can save wav files in folders creates per system/group/time/frequency/Tgid.

Audio sample rate: select sample rate, for normal voice select 8000 or 11025. For high quality recordings increase the sample rate (this will also increase file size of the recorded files).

Use short filenames: Wav filenames are generated from the frequency or talkgroup id. If you unselect this option additional information like system/group/channel/subtone is stored in the filename.

IMPORTANT: The total length of the full path and file name may NOT exceed 260 characters else the file is NOT stored. This is a limitation of Windows!

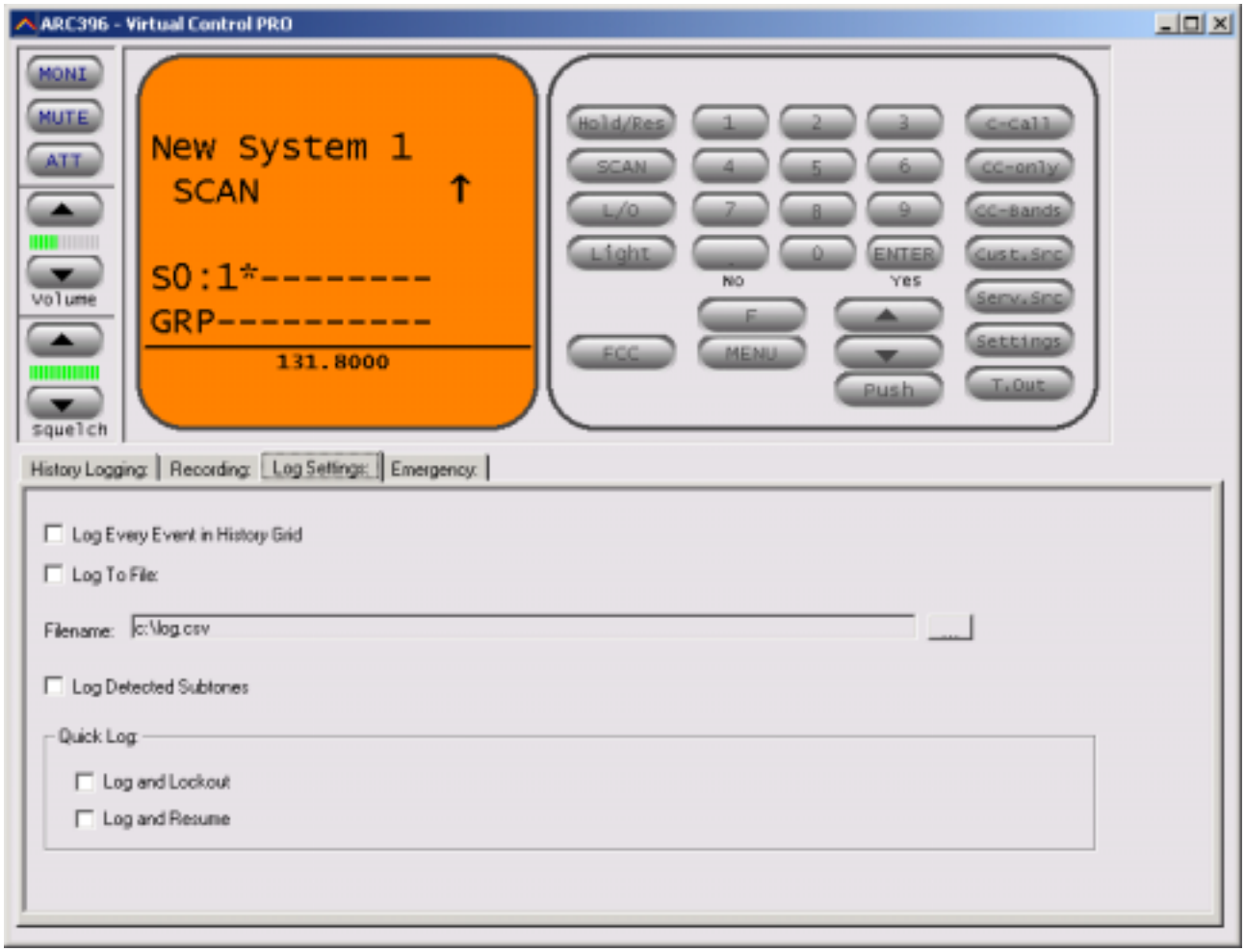
Save delay:
Defines how long the recorder waits before saving a wav file.
IMPORTANT: when you use the recorder option make sure you program a channel delay of at least 2 seconds per system. This delay assures that the software has enough time to store the recording and start a new recording.

Set recording Volume:
Click this button to select the recording source (line in) and set the recording volume. (this option does not work under VISTA)

Custom path:
Select the custom path where audio files are stored.

VISTA note: In vista access top certain folders is blocked. For best performance store your audio files in the 'Documents' or 'My documents' folder.

5.4.3 Log Settings: (PRO VERSION)



Log Every Event: click this box to write a line in the history grid for every event. If box is unchecked the software will only increase the hitcounter and last event is moved to top of history list.

Log To File: Writes the log in a csv compatible file. Press … button to set filename and path.

Log detected subtones: In subtone search mode the scanner can detected subtones, these detected subtones are shown in the grid and are marked ‘SUB’

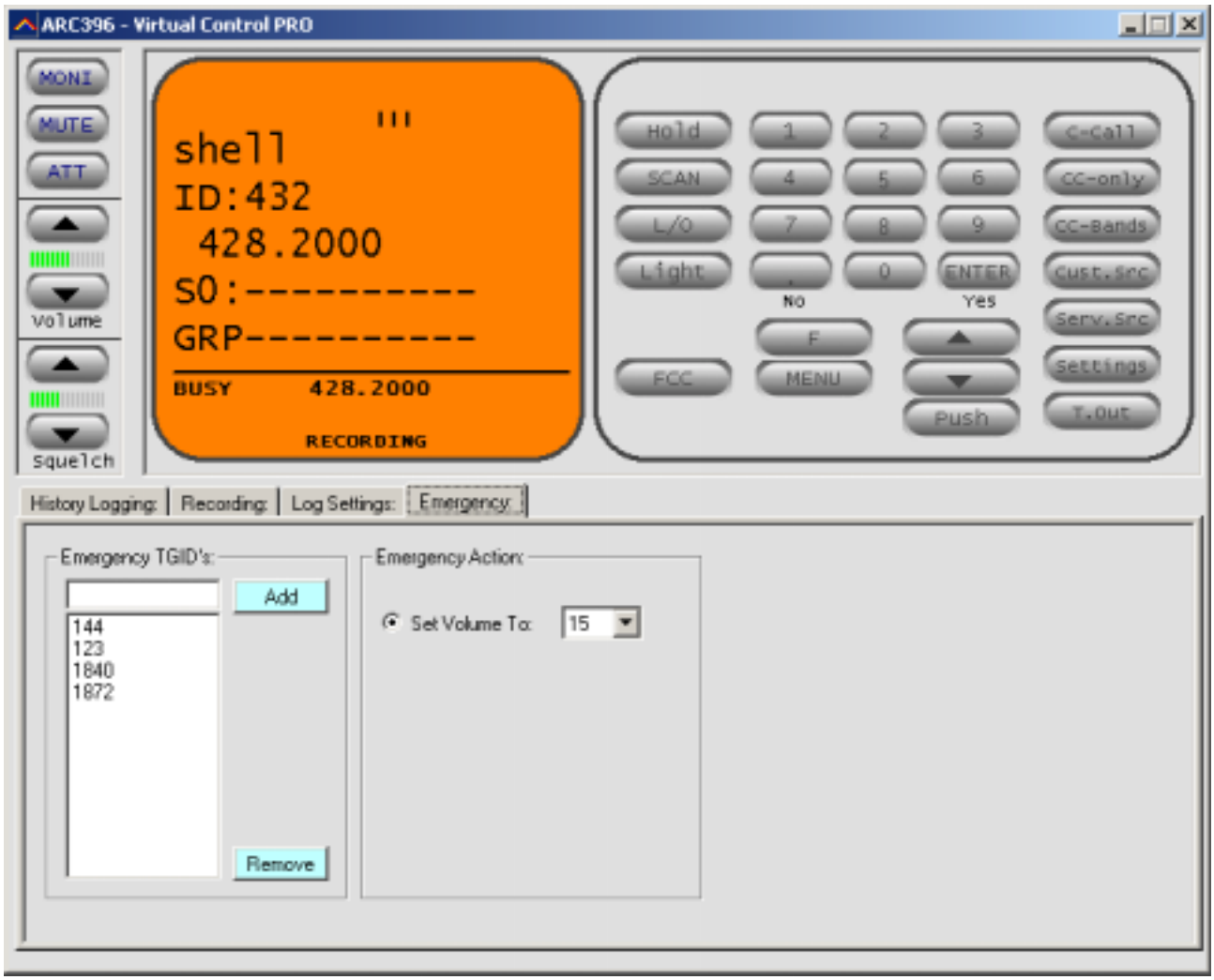
Resume Scanning/searching: scanner will resume scanning or searching after the selected delay time (negative delay).

Quick log:
For quickly analyzing new systems/frequency range you can use the quick log options.

Log and Lockout: the software will log the talkgroup or frequency and then lockout the talkgroup or frequency.

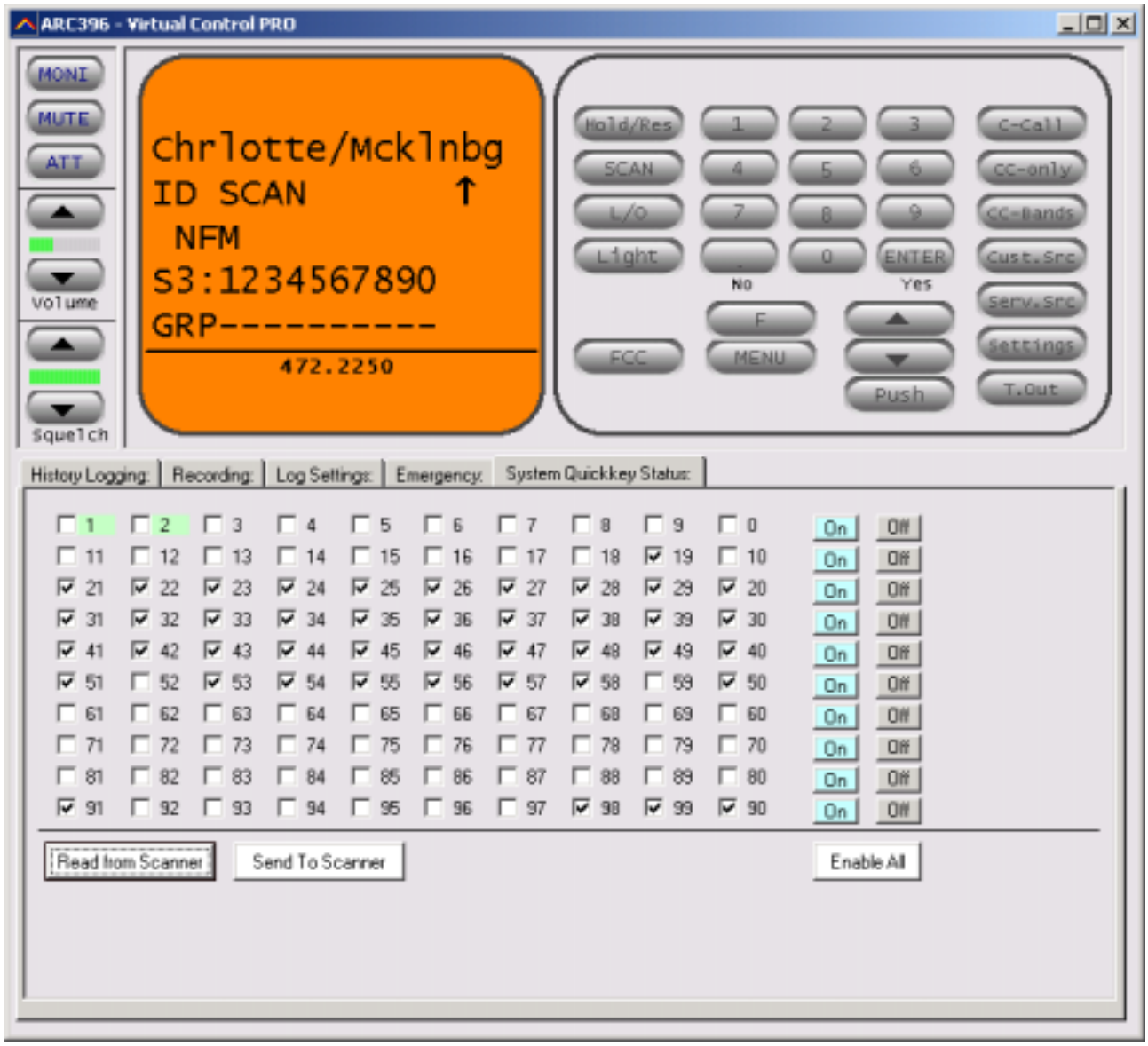
Log and Resume: the software will log the talkgroup or frequency and then resume scanning.

5.4.4 Emergency: (PRO VERSION)



The emergency tab is used to enter important Trunk talkgroup id's. When these id's become active the software will automatically set the volume to the selected setting.

5.4.5



The system quickkey status tab is used to enable/disable system quickkeys.

To enable/disable quickkeys use the ‘tick’ boxes or the On/Off buttons. Next use ‘Send to Scanner’ to update the information in the scanner. Before you can send the status to the scanner you must first read the current settings from the scanner.

Read from Scanner: read systems Qkey settings from scanner. Quickkeys shown in ‘green’ are assigned to one or more systems but not enabled.

6 FCC lookup

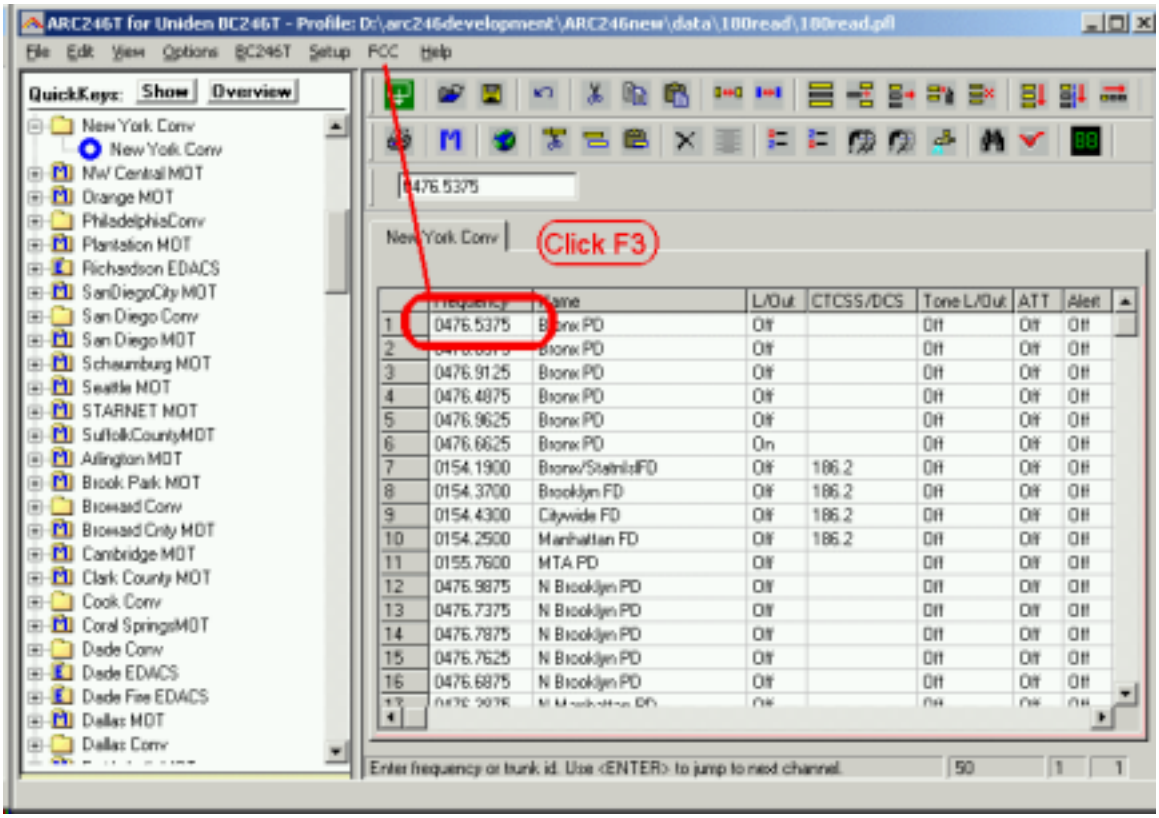
ARC396 has a built FCC frequency lookup utility.

You can directly search the online FCC database, press F3 to open the search window. First select a State and then enter the frequency.

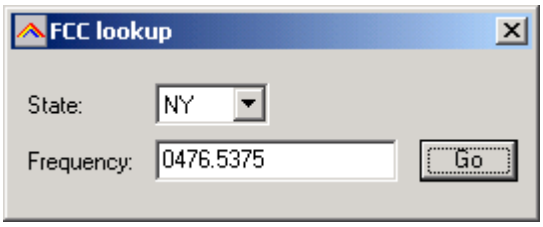
You can also directly check frequency data from the grid:

- click on the frequency you want to check, in this example 476.5375, the frequency is shown above the grid in the editor bar.
- Press F3, the FCC lookup window is shown and the frequency is copied to that window. ARC396 tries to open your web browser and search the frequency.

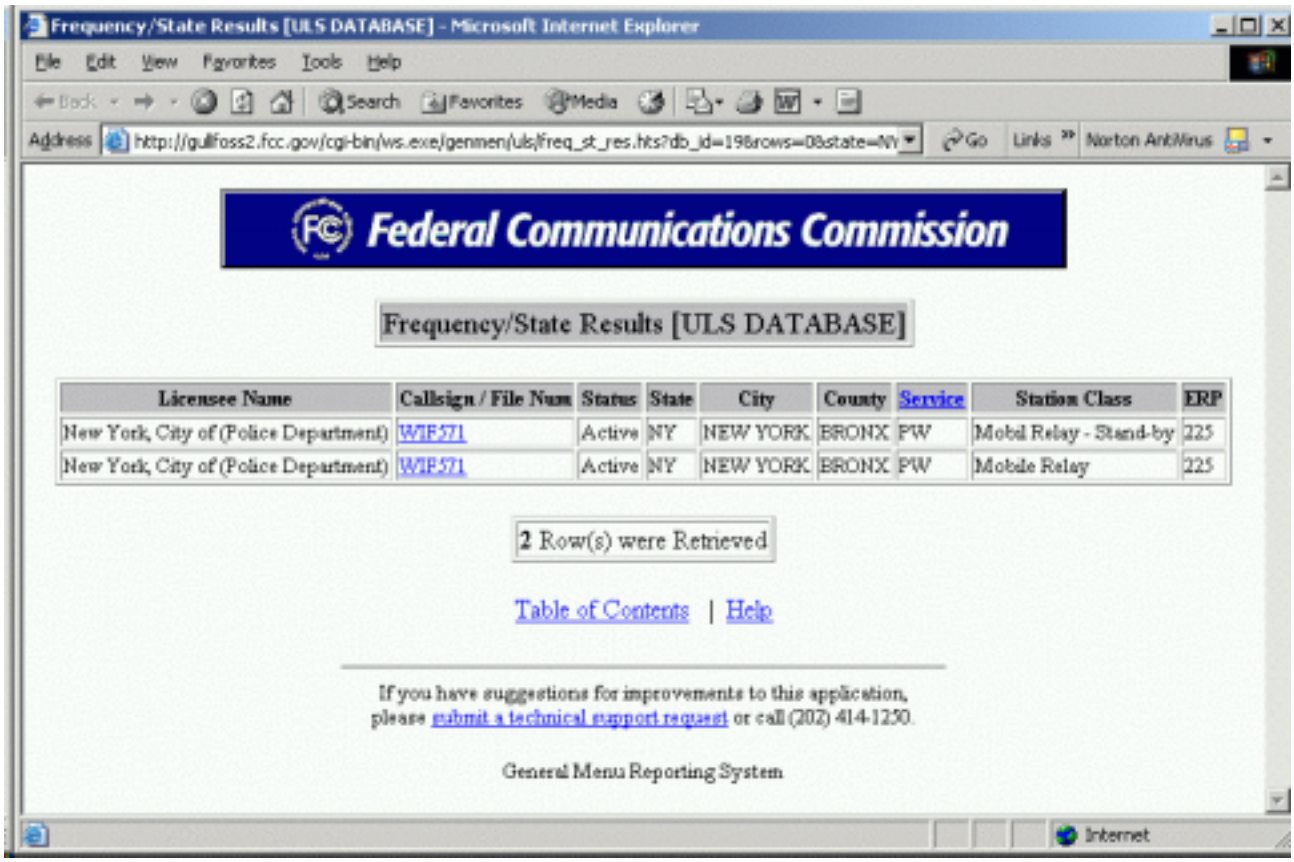
IMPORTANT: you must select the correct State first. ARC396 can only search one state. This setting is remembered.



FCC lookup window:



And here is the result of the FCC search:


Frequency/State Results [ULS DATABASE] - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://gullfoss2.fcc.gov/cgi-bin/ws.exe/genmen/uls/freq_st_res.hts?db_id=198rows=08state=NY
Federal Communications Commission
Frequency/State Results [ULS DATABASE]
Licensee Name | Callsign / File Num | Status | State | City | County | Service | Station Class | ERP
New York, City of (Police Department) | WIF571 | Active | NY | NEW YORK | BRONX | PW | Mobil Relay - Stand-by | 225
New York, City of (Police Department) | WIF571 | Active | NY | NEW YORK | BRONX | PW | Mobile Relay | 225
2 Row(s) were Retrieved
Table of Contents | Help
If you have suggestions for improvements to this application, please submit a technical support request or call (202) 414-1250.
General Menu Reporting System
Internet

7 RadioReference Database import

ARC396 can import conventional frequencies, trunk system settings and talkgroup id's directly from www.radioreference.com , RadioReference is the largest and most accurate scanner database in the world.

For information about the database check out:
http://www.radioreference.com/modules.php?name=RR

IMPORTANT: To use the Radioreference import option you must sign up as a member and make a donation to Radioreference.com.

IMPORTANT: you must allow the ARC software to access the internet through your firewall (port 80 only). Without access the import option will not work.

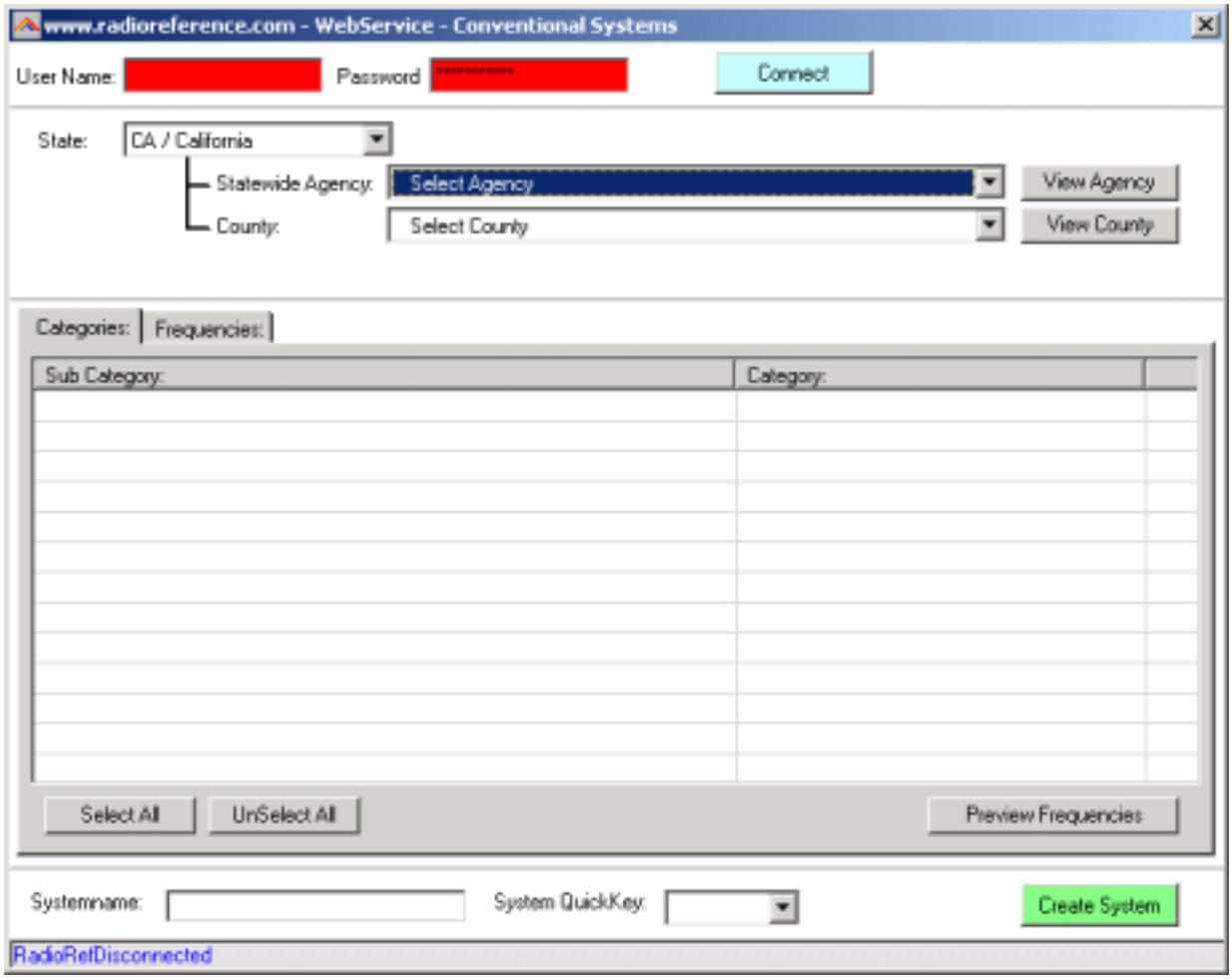
If the radioreference.com import option does not work, check the following:

- Make sure your username/password is valid. Go to www.radiorefence.com and logon to check your username/password are valid
- Open a web browser and go to this website: http://www.radioreference.com/apps/xml/sl=1 , Enter your username and password and when accepted you will see a list of US States. If you are not accepted contact the Radioreference.com administrator.
- You must be a donating member. Information at http://www.radioreference.com/modules.php?name=Content&pa=showpage&pid=23
- if you are not a donating member the software will show an error message.
- Disable your firewall; if this restores access to the database you must re-configure your firewall so ARC396 is allowed to access the internet (port 80 only).
- Error message 12007 indicates your firewall is blocking access to the internet.

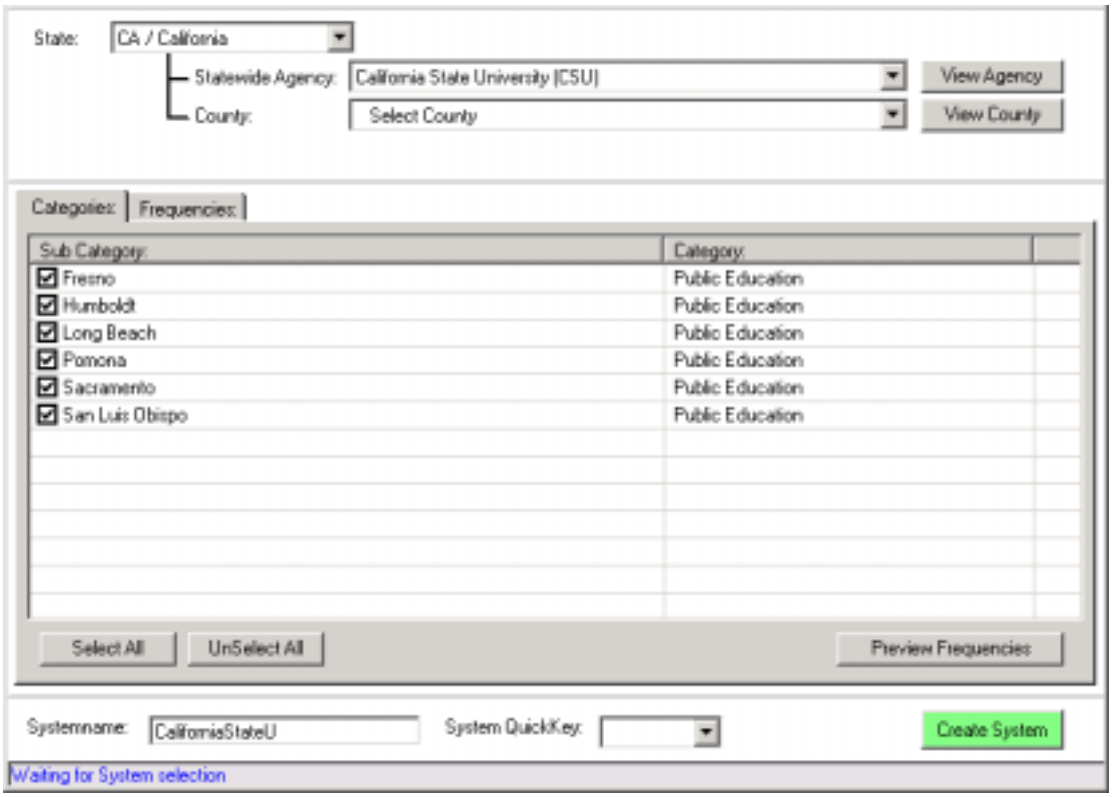
7.1 Conventional Import:

Enter you username and password and click CONNECT.

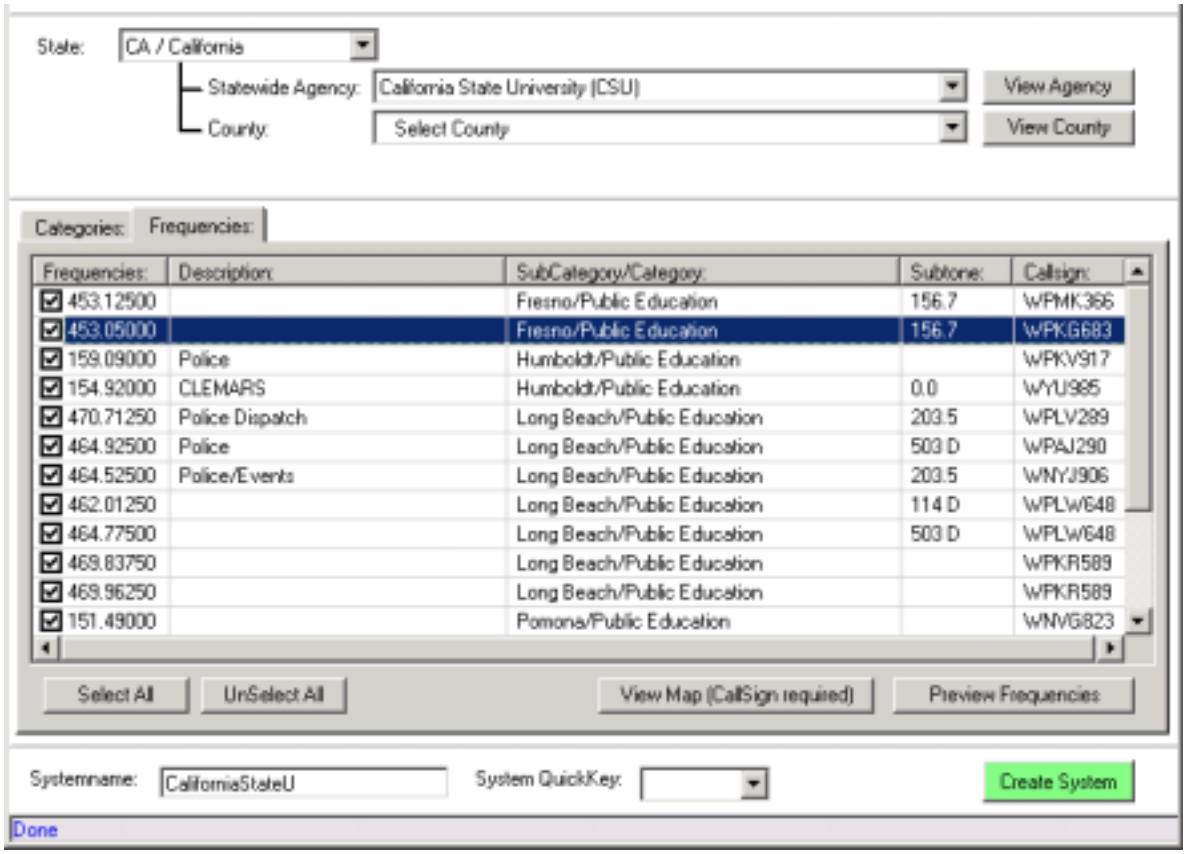
You can now browse the database, select your State and County or Agency you want to import:



After a Agency or County is selected the available Sub Categories and Categories are shown, select the Categories you want to import:



Each category will be imported as a group, therefore you can only import 20 categories per system.
You can now select 'Create System' or preview the frequencies first by clicking the Preview option:



In the preview window you see detailed information about the frequencies found in the database. You can select the frequencies you want to import, by default all frequencies are selected.

7.2 Viewing map of transmitter site:

If a callsign is shown in the frequencies Preview window you can view a map of the location of the transmitter, click the callsign then “View Map”. This will open a map or satellite image of the transmitter location.

7.3 Trunk Systems:

ARC396 you can import trunk system settings and talkgroup id's directly from www.radioreference.com , RadioReference is the largest and most accurate scanner database in the world.

For information about the database check out:
http://www.radioreference.com/modules.php?name=RR

IMPORTANT: To use the Radioreference import option you must sign up as a member and make a donation to Radioreference.com.

In ARC396 select 'INTERNET _ RADIOREFERENCE _ Trunk systems' and the import window is shown:

Enter your Username and Password and press 'CONNECT'.
The software will now try to setup a link with the database.

IMPORTANT: you must allow the software to access the internet through your firewall (port 80 only). Without access the import option will not work.

Once connected to the database you can browse States, Counties and Systems to get the trunk system frequencies and Trunk ID's from the database. You can use the 'VIEW' options to preview the data per State/County or System.

To import data, select at least one site and one group with talkgroup ID's. Next press 'Create System' and a new system will be added to your systembrowser.

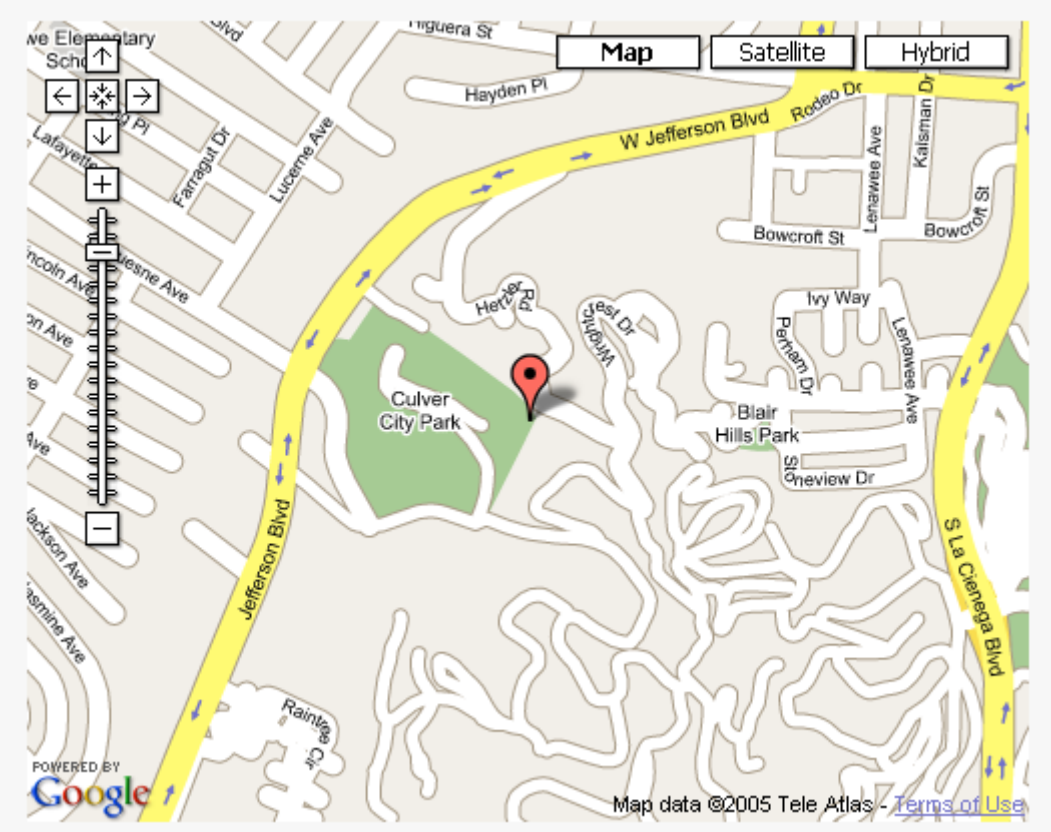
Control Ch. Only: when you select this option, the software will only import control channel frequencies and the software will automatically enable the 'Control Channel Only' mode for the selected system (Motorola Type 2 systems only).

7.4 Displaying site maps:

You can view a map based on the FCC callsign.
In the example below you can see the callsign that was found in the database (WIJ364). Callsigns are stored in a system.

When you click the 'View Map..' button, your web browser will load and show a map and relevant information for this site.
Important: The view map option only works if one site is selected.

Map based on FCC callsign:



8 General information and troubleshooting

8.1 Troubleshooting communication problems

In case of communication problems you can use the information in this section to troubleshoot communication problems.

8.1.1 Set/Check scanner communication settings:

Switch on your scanner, verify the scanner is enabled for RS232 serial communication:
Press MENU, select 'Xfer Information' 'PC Control' and select 57800 and press E to store this setting.

8.1.2 Check your cable

The BCD396T comes with a special serial cable. Connect the cable directly to your PC serial port (9 pin male connector). If you use extra cables remove them and connect your scanner directly to your PC. Also check cable is properly plugged in the scanner.

8.1.3 Other serial drivers:

If you also use the serial port for programming your PDA/PALM/POCKET PC or mobile phone (GSM), there may be resident software that constantly polls the serial ports. Disable any PDA/mobile phone programming software; they may interfere with the scanner serial communication.

8.1.4 Serial/USB devices:

ARC396 does not support USB devices since the Uniden scanners only use RS232. If your PC does not have a serial port you can purchase the optional USB-1 cable at www.uniden.com

8.1.5 Use the ARC396 Autodetect option:

The ARC396 autodetect option has been well tested. Connect your scanner using the supplied cable, switch on your scanner and set serial communication to 57800 (see 8.1.1), and then select autodetect.

8.1.6 Comm error 8018:

Communication error number 8018 will occur when other software is already controlling the selected comport. This error means that ARC396 cannot get access to the selected comport usually because other software has control over the comport. Close the other software.

8.2 Revision history:

ARC-330 V0.94:

- Removed Qkey 0
- Fixed race system problem
- Fixed firmware link
- Fixed Qkey overview problem
- Print option for trunk system settings/quickkeys
- Support for 200/700 MHz trunk systems
- Support for 8.33 step

ARC-396 V1.03:

- Fixed Qkey overview problem
- Fixed cosmetic bugs
- Fixed misc. Bugs in radioref import
- Print option for trunk system settings/quickkeys
- Support for 200/700 MHz trunk systems
- Support for 8.33 step
- Fixed LTR number of channels
- VC: new option: create folders per system/group
- VC: new option: font bold option
- VC: added keyboard shortcuts
- System now stored latitude/longitude/callsign
- Maps can be linked to system
- View site maps in radioref import
- Improved configuration editor

ARC396-V1.040:

- Sort systems by quickkey (normal and Uniden style)
- Fixed recording filename problem (pro version)
- System quickkeys on/off now stored in profile
- Removed system Qkey settings from config editor
- Remove empty lines in all groups
- Enabled mode / alert settings for trunk systems
- Enabled apco25 setting for conv. systems
- Fixed MOT UHF channel offset problem
- Fixed priority channel problem
- Increased communication delays to avoid empty channels
- Batch import mem files

ARC396 – V2.0:

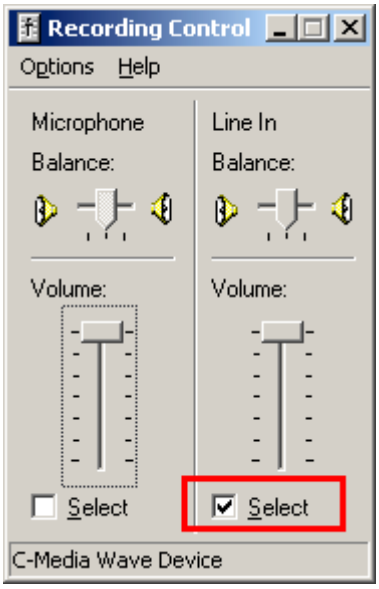
- Software is Vista ‘standard user’ compliant
- New default folders under ‘My Documents’
- Radioreference Conventional systems import
- VC has new tab for enabled/disabling System Quickkeys
- New searchable PDF manual
- Sort groups by name
- Sort cars by number/driver name (330 only)
- Order of systems in upload window is now same as in systembrowser
- In upload window systems can be sorted in system overview list
- Upload window also displays system quickkeys
- Improved editor and editor options
- Improved trunk frequency editor
- Improved menu structure
- Improved race system editor
- Improved system sorting
- Modified core database for future multi site support
- Latitude/longitude search options based on US address
- New option: editor for global lockout frequencies
- Fixed problem group shown not correct after saving data
- Custom option to upload System quickkey status
- New ‘New’ options
- Cosmetic changes for UBCD396T model
- Rs232 window new option to open Device Manager
- System are saved in same order as in systembrowser
- Option to clear all file names
- Option to set Group Qkeys status for all systems
- VC is now resizable
- VC has improved and faster 'no loss' recorder
- VC has improved and faster 'logger'
- VC recorder has selectable sample rate
- VC recorder can create folders per frequency / talkgroup
- VC has selectable 'save delay'
- VC has 'log and resume' option
- VC has 'log and lockout' option
- fixed mute status problem
- fixed a system overwrite problem
- fixed find duplicates problem
- improved CSV import
- user can set number of groups for new systems
- improved tabs
- fixed VC minimize problem
- fixed radioref import problem mot2 - 900 MHz systems
- Vista tested ok
- fixed ATT problem
- fixed system overwrite problem
- fixed problem when entering emergency talkgroups in VC pro
- improved and faster serial communication
- fixed ‘shift data’ problem

8.3 ARC396 Pro connecting the scanner to your soundcard

ARC396 PRO has a built in digital audio recorder. To use this option you must connect the speaker/headphone output (1/8” mono connector) to your soundcard line in (usually a light green connector).

Also you must setup the recording volume in Windows:

- start ARC396 PRO and start the virtual control
- Click on the Recording tab and press the ‘Set Recording Volume’ button:



In this window make sure that the Line-In is selected. Now you can set the recording volume by moving the Volume slider.